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CONFERENCE IN THE MATTER OF POLLUTION OF THE INTERSTATE WATERS OF THE MISSOURI RIVER-OMAHA, NEBRASKA-IOWA-MISSOURI-KANSAS

Department of Health, Education and Welfare
Washington, D. C.

1964

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Conference

In the Matter of Pollution of the Interstate Waters of the Missouri River - Omaha Area

Second Session July 21, 1964

First Session June 14, 1957

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CONFERENCE

in the matter of

Pollution of the Interstate Waters of the

MISSOURI RIVER, OMAHA, NEBRASKA AREA

(Nebraska-Iowa-Missouri-Kansas)

PROCEEDINGS

First Session

June 14, 1957

Room 302 City Hall
Omaha, Nebraska

U.S. Department of Health, Education, and Welfare
Washington, D. C.

CONFERENCE AT OMAHA, NEBRASKA
On Interstate Pollution
In the Missouri River

Room 302 City Hall
Omaha, Nebraska

June 14, 1957

Chairman: Mr. Murray Stein
Chief of the Enforcement Section
Water Pollution Control Program
U. S. Public Health Service
Washington 25, D. C.

- - -

APPEARANCES

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Mr. Jack Smith
Engineer in Charge
Water Pollution Control Program
Jefferson City, Missouri

Kansas:

Mr. Carl Hodgkinson
Water Pollution Control Program
State Board of Health
Topeka, Kansas

City of Omaha:

Mayor John Rosenblatt;
Mr. Herbert Ulrich, Sanitation Engineer;
Mr. E. W. Woodbridge, City Engineer;
Mr. D. P. DeBord, Acting City Engineer;
Mr. Charles Durham, Consulting Engineer.

CHAIRMAN STEIN: At this time I should like to open this Conference on Pollution of Interstate waters of the Missouri River involving Nebraska, Iowa, Missouri, and Kansas, with particular emphasis on discharges in and around the Omaha, Nebraska, area.

This conference is held under the Federal Water Pollution Control Act and, in accordance with the terms of that Act, was called by the Surgeon General of the Public Health Service.

The purpose of a conference of this type is to bring states, other interested parties, and the Public Health Service together to lay a basis for future action by all parties concerned and to give states and localities an opportunity to take any remedial action which may be indicated under state and local law.

The Surgeon General, in accordance with the provisions of the Federal Act, has notified the official state agencies, and that is the State Department of Health of Nebraska, the State Board of Health of Kansas, and Division of Health of the Missouri Department of Public Health and Welfare, and the State Department of Health of Iowa. All of these state water pollution control agencies have representatives at this conference, and under the law this is a conference between the official state agencies and the Public Health Service. The official state agencies, of course, are privileged to bring whomever they desire to the conference.

At this conference Nebraska is represented by Mr. Filipi, and he has invited Mayor Rosenblatt of Omaha and other municipal and allied officials.

Iowa is represented by Mr. Houser and by Mr. Schliekelman.

Missouri is represented by Mr. Happy and Mr. Smith.

Kansas is represented by Mr. Hodgkinson.

The Public Health Service is represented by Mr. Hopkins, the Regional Engineer with headquarters in Kansas City, and Mr. Dworsky, the Assistant Regional Engineer.

My name is Murray Stein and I am from Public Health Service headquarters in Washington.

In interstate pollution problems both the Federal Government and the states have responsibilities. However, I would like to emphasize this point. The Federal law clearly states, and it has always been the policy of the Public Health Service to recognize, that the states have the primary right and responsibility for taking action to abate and correct interstate pollution. The function of the Public Health Service is to encourage the states in these activities. However, the Public Health Service also is required by law to exercise certain responsibilities in connection with interstate pollution control problems.

The law provides that pollution of interstate waters which endangers the health or welfare of persons in a state other than that in which the discharge originates is subject to abatement, and when the Surgeon General believes that such pollution is occurring he is to call a conference of this type. That has, as I have indicated, already been done.

I should like to emphasize that we realize that in many areas there has been considerable progress made toward a solution of pollution problems by the states and by the local political subdivisions. Under the law we are required to call this conference, among other reasons, just to set up a clear record indicating what progress had been done and what needs to be done to correct an interstate pollution problem.

Under the Act the Surgeon General is required at the conclusion of the conference to prepare a summary of the conference, which will be sent to all the conferees in attendance. The summary, according to law, must include the following:

(1) Occurrence of pollution of interstate waters subject to abatement under the Federal Act;

(2) Adequacy of measures taken toward abatement of the pollution; and

(3) Nature of delays, if any, being encountered in abating the pollution.

It is suggested that the conference be directed toward discussion of these points so that we may prepare a serviceable summary at its conclusion. In addition, the Surgeon General is required to determine at the conclusion of the conference whether effective progress toward abatement of pollution is being made. I think as an aid in such a determination it would be desirable for the conference to come up with a time schedule of remedial action.

I should like to call attention to Miss Hough, who is making a stenographic report of these proceedings for the purpose of aiding us in preparing the summary and also providing a record of what is said and done here.

In addition I should like to outline what will generally be the proceedings of a conference of this kind. We should like to call on the conferees and the people designated by the conferees, such as municipal officials, to make statements on various aspects of this problem. When such statements are completed all conferees have a chance to comment on these statements or ask questions, and I think in that way we will find that we can probably develop this problem and perhaps seek some equitable solutions of the problem.

At this point I should like to call upon Mr. Glen Hopkins of the Public Health Service, who will give a general presentation of the interstate pollution problem of this area.

Mr. Hopkins.

MR. HOPKINS: Mr. Chairman, Mr. Mayor, gentlemen.

The Missouri River Basin, built around one of the longest rivers in the whole United States, has now in progress a vast water and land resources development program. Control of water pollution is an important and critical part of this development program. The value of the basin's water resources not only depends upon having the water available where it is needed, when it is needed, but also on its degree of cleanliness. The key to complete realization of the basin's potential depends upon the ability of its people to control water pollution. Clean waters will protect advances already achieved and open a wide field of resources that are virtually untouched.

In the river stretch from Yankton, South Dakota, to St. Louis, Missouri, some 1,800,000 people use the Missouri River as a source of drinking water. Each day 250 million gallons of Missouri River water are used in the homes of these people. With population growth, problems of water supply and pollution control increase.

Recreational opportunities become increasingly important with population growth. Development of recreational facilities for campers, fishermen, boaters, and sightseers can be accomplished since the Missouri has become a controlled river. Realization of these values, however, depends upon pollution being controlled.

Because of the interstate nature of the Missouri River numerous studies and reports have been made over an extended period by the states and the Federal Government. Their purpose has been to point out the problem and prepare for remedial action.

The interstate effects of pollution in the Missouri River were identified as early as May, 1913, in a report, "Sewage Pollution of Interstate and International Waters -- The Missouri River from Sioux City to Its Mouth," by Dr. Allan J. McLaughlen (Hygienic Laboratory - Bulletin No. 89). Through the years 1913 to 1948, the Lower Missouri remained of concern to health officials of the states as well as the Federal Government.

In 1948, the Congress, cognizant of the health and welfare problems created by increasing pollution of the nation's waterways, established a cooperative pollution control program between state water pollution control agencies and the Public Health Service. Under this program the Public Health Service Regional Office VI, Kansas City, Missouri, and the five states in the Lower Missouri - South Dakota, Iowa, Nebraska, Kansas, and Missouri - cooperated in extensive investigations and reports of pollution conditions in the Missouri from the Niobrara River, South Dakota, to St. Louis, Missouri. A report, titled "Lower Missouri River Basin, Water Pollution Investigation, October 1952" outlined the pollution problem and suggested courses of action for cities, states, industries, and others to control this longstanding situation.

This report showed that untreated wastes were discharged to the river by Carter Lake and Council Bluffs, Iowa, and Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska. Except for the Quaker Oats Chemical Company, major industries at Omaha, such as the Greater Omaha Packing Company and the South Omaha Packers, discharge wastes to the Missouri River through the Omaha municipal sewer system.

In July 1953 the Surgeon General of the Public Health Service, under authority of the Federal Water Pollution Control Act, formally adopted a "Comprehensive Program For Control of Water Pollution - Missouri Drainage Basin" (P.H.S. Publication No. 317). The report, a joint effort of the ten basin states and the Public Health Service, noted the interstate nature of pollution along the main stem of the Missouri River and recommended treatment of wastes at Omaha, Nebraska, and other communities and industries discharging to the main stem.

Another report, "Evaluation of Interstate Pollution, Lower Missouri Sub-Basin, State of Nebraska," was prepared by the Public Health Service and approved by the state water pollution control agencies of Kansas, Iowa, and Missouri in August 1953. The purpose of this report was to provide a common basis of understanding between the states and Federal Government on factors relating to the pollution problem in the Lower Missouri River. Those responsible for discharging untreated wastes in the Omaha area were cited and the Nebraska Department of Health was asked by the Chief, Division of Water Pollution Control, Public Health Service, in a letter dated February 26, 1954, to take all possible action to secure abatement of pollution originating in Nebraska.

Following a series of meetings between the five states in the Lower Missouri Basin and the Public Health Service, a "Uniform State Program," outlining steps to abate interstate pollution, was adopted by the states in November 1953. Progress reports have been periodically submitted to the Public Health Service since that time, the most recent of which indicates that the City of Omaha has levied a sewer service charge and the revenue is being used to finance a 3 million dollar bond program. An engineering firm has been retained to study sewage disposal problems at the 63rd and Harrison Streets plant, the Minne Lusa, Burt-Izzard, Grace and Chicago Streets outlets. By resolution of the Sanitation Commission, the South Omaha sewer outlets will also be under study in the near future.

While the pollution contributed by Omaha and the other cities, towns, and industries below it are of immediate concern, related pollution placed into the river from communities and industries above Omaha result in residual pollution immediately above Omaha. These sources of pollution, added to that coming from Omaha and below, constitute the total volume of pollution affecting the health and welfare of people in the Lower Missouri River. The related sources of pollution include wastes from Sioux City, Iowa, and South Sioux City, Dakota City, Niobrara, and Ponca, Nebraska.

Mr. Chairman, I would like to present a series of charts which will indicate some of the more important aspects of the pollution problem and show a number of findings of our several surveys.

This map outlines a few of the major projects of the Missouri River Basin Development program which, together with the program for pollution control, forms the over-all plan aimed at conserving the basin's water resources. The flood control, hydroelectric power, irrigation, and navigation phases are aimed at helping the area and its inhabitants achieve greater economic security; to stabilize the economy against recurring drought and to stimulate the further development of the Basin to keep pace with national growth.

Outlined in blue is the navigation section of the river. Upstream from that on, pear-shaped diagram is indicated the regulating reservoirs of the Missouri River. The black circles and segments of circles represent the sources of waste and their relative magnitude. The blue circles represent sources of public water supply.

Omaha has already felt the benefit of this program by being assured of freedom from floods on its extensive waterfront area. Industrial growth of Omaha is one of the several consequences of this situation.

Chart No. 2. The four graphs on this chart show the average monthly density of coliform bacteria during the two-year period, 1955-56, at the municipal water intakes of Omaha, Nebraska, Council Bluffs, Iowa, St. Joseph, Missouri, and Kansas City, Kansas.

Coliform bacteria serve as indicators of pollution. The Public Health Service recommends that it not be in excess of 5,000 per 100 milliliters and that not more than 5 percent of samples taken exceed 20,000 coliform bacteria per 100 milliliters in order to produce a healthful water supply using reasonable and economical treatment methods. While water treatment plants can, and do, treat waters containing greater quantities of coliform bacteria, the absence of disease should not create a false sense of safety about the quality of the Missouri River as a source of supply. Dependence must not be placed solely upon water treatment processes, and particularly chlorination, to produce a safe water supply from a highly polluted source. Human errors in operation, mechanical failures, or disaster conditions could result in serious illness by allowing polluted river water to break through the barrier of water treatment.

For reasonable conditions, the Public Health Service recommends that coliform levels be not in excess of 5,000 per 100 milliliters, and that not more than 5 percent of samples taken exceed 20,000 coliform bacteria per 100 milliliters.

The graphs indicate that pollution has greatly exceeded these tolerance limits at both the Omaha and St. Joseph water supply intakes. Bacteriological pollution was usually most critical during the summer period. Degradation of water quality was considerably more marked at St. Joseph than at Omaha, as would be expected from the pollutional load contributed at Omaha. Average monthly values reached 250,000 coliforms per 100 milliliters at Omaha and 380,000 coliforms per 100 milliliters at St. Joseph during 1955. The maximum coliform values ranged much higher than the average monthly values.

The third chart indicates the percent of samples with coliforms consistently exceeding acceptable values. It should again be noted that acceptable levels of coliform density are measured in two ways: (a) not to exceed a density of 5,000 per 100 milliliters, and (b) not more than 5 percent of sample should exceed densities of 20,000 per 100 milliliters or over. The chart shows that at St. Joseph densities of 5,000 were exceeded in over 80 percent of the samples, densities of 10,000 in 75 percent of the samples, densities of 20,000 in over 60 percent of the samples.

The chart also illustrates the increase in the coliform level starting at Omaha and working down to St. Joseph and Kensas City, Kansas.

The final chart indicates that pollutional conditions as represented by coliform-type bacteria are much more intense at intermediate points than they are at the water plant intakes specifically. That would be expected since the water plants represent the greatest distance between the upstream source of pollution and the water plant use. Specifically below Omaha the bacterial pollution reaches many, many times the level that it exists at the downstream water plant.

While this fact suggests that water plants have the most favorable locations under the circumstances, it also points out that pollutional damages to uses other than water supply may be considerably greater than can be measured by treatment problems posed at various municipal water plants.

As a result of the investigations and studies made over the several years, and in the light of complaints, information and other data in the files of the Public Health Service, it is evident that pollution of the Lower Missouri River exists below Omaha. It is further evident that this pollution is of an interstate character. Finally, it is apparent that the effects of this pollution are detrimental to the reasonable use of waters in the Missouri River for municipal and industrial water supply, commercial and sport fishing, boating, and other recreational pursuits. Public opinion is more alert than ever before to the dangers and ill effects of water pollution, and there is every indication that the citizens of each concerned community and the business and industrial leaders of the area are ready to move forward to effectively solve this problem.

This presentation should recognize that considerable progress has been made in the Omaha area. I am sure that later testimony will bring out that voter support has already been secured and that is certainly an important step in any program. Planning has advanced to virtual completion for the 63rd and Harrison plant. It is under way for the Minne Lusa Douglas Street section of the problem. And as the conference chairman stated, this conference will record and reflect this progress.

Thank you.

CHAIRMAN STEIN: Thank you, Mr. Hopkins.

Miss Hough, will you mark this statement Exhibit FC-1.

Do any of the conferees have any comments on Mr. Hopkins' statement or have any questions to ask Mr. Hopkins?

If not, I would like to ask Mr. Hopkins just two small questions, largely for the record.

One, as you know, this conference just has jurisdiction over pollution of interstate waters. The term "interstate waters" under the Act means all rivers, lakes, or other waters that flow across, or form a part of, boundaries between two or more states. In your opinion would you say that the Missouri River in the area you have described meets the definition of interstate water under the Federal Act?

MR. HOPKINS: Unquestionably.

CHAIRMAN STEIN: The next question I would like to ask is, the Federal Government also has jurisdiction over pollution of interstate waters which endangers the health or welfare of persons in the state other than that in which the discharge originates. Would you say that the situation you have just described meets these specifications I have outlined here?

MR HOPKINS: Yes.

CHAIRMAN STEIN: Thank you, Mr. Hopkins.

Next I would like to call on Mr. Filipi to talk to the sources of pollution and the nature of the wastes.

Mr. Filipi.

Before you start, the record may indicate that Mr. Filipi's statement will be Exhibit NC-1.

MR. FILIPI: Mr. Chairman, Mr. Mayor, members of the conference.

The Missouri River is the most important resource in the Middle West. It supplies 250 million gallons of drinking water daily to 15 communities of a total population of 1,750,000 people. Fifteen industries use 1150 million gallons of this water daily for various process work. It removes domestic and industrial wastes from 270 municipalities and at least 75 industries. Commercial fishing and navigations are important uses of the river. Recreational fishing and boating are being not only enjoyed by hundreds of persons at this time, but plans for additional development in this area are being made if the waters are cleaned up.

In the matter of existing pollution, studies made in the past indicate that the Missouri River is highly polluted. The details of these studies are recorded in the Public Health Service Publication No. 269, Lower Missouri River Basin Water Pollution Investigation, October, 1952. No one has ever questioned the data therein or the conclusions reached.

These studies indicate that the quality of water in the river is far below that desired for the various uses. The only reason that it is now used is because there is no other supply available. In the case of Nebraska City another source of water was recently developed in order to get away from drinking the highly polluted river water. When the citizens of Nebraska City learned of the quality of water used as a supply, when they saw the debris on the water plant intake screens, and saw the scum on the settling tanks, prompt action was taken to develop a new water supply.

The bacterial pollution is far higher than that acceptable for drinking water by the United States Public Health Service. These standards are well accepted by water works and public health officials. Only by the extremely careful operation of water treating plants is the consuming public given reasonable protection from drinking water that could be polluted or contaminated. All known processes and equipment is being used to produce water of acceptable quality. A sight failure on operation, equipment or chemical could easily be the factor in water-borne epidemic.

The fact that the river is badly polluted has long been known. As far back as 1948, in meeting with the Omaha Sanitation Commission, the Chairman stated that they recognize that Omaha is polluting the river, but that the State of Nebraska has no authority to order abatement, and that only when the Congress of the United States so orders will treatment be provided. All other communities along the river likewise acknowledge pollution and all agree something must be done.

In setting up a program of abating existing pollution and preventing future pollution, it is the belief of municipal officials in Nebraska representing communities discharging sewage that clean-up should start where the greatest pollution exists. This philosophy may be partially accepted because, even though the statement may be true, it gives opportunity for stalling by other pollutors. The State Department of Health never accepted this reasoning. It is our belief that every bit of pollution adds to the over-all problem. Therefore, each town along the river has been urged to plan a sound sewage treating program.

The over-all program has been accelerated by the follow-through of an agreement drafted by the State Sanitary Engineers of Iowa, Kansas, Missouri, and Nebraska and the Drainage Basin Engineer of the United States Public Health Service on September 15, 1953, for abatement of pollution entering the main stem of the Missouri River. This agreement, together with a survey of this meeting are attached as Exhibit A.

The details of this agreement were carried out by the holding of individual and joint conferences with municipal officials. These meetings served a useful purpose of educating the officials of the problem at hand, but yield no tangible results. Some engineering studies were made, more meetings were held, several communities adopted a sewer service charge for the financing of treating works, but as yet no treating plants in Nebraska are under construction along the main stem of the Missouri River.

A definite understanding of a construction program must be set up with definite target dates for the letting of contracts for construction. This should include communities in all states bordering the river. Since the larger communities are looked upon as leaders in all civic enterprise, it is only reasonable that since, in addition to population size, they are the largest contributors of pollution that they be the first to set definite target dates for their program. The greatest results in stream pollution abatement will be realized by the construction of the larger plants. This will then remove the excuse that the smaller communities are using of waiting until Sioux City, Omaha, or Council Bluffs start construction.

The passage of Public Law 660 by the 84th Congress now sets up a national program which will envelop regional and state programs, coordinating all work for one common objective. This law now provides the authority that was questioned in 1948, that no one except the Congress can force Omaha to provide treatment. If reasonable progress is not reported, means of enforcement are provided.

On May 21, 1957, the Nebraska Legislative Bill 118 was signed into law by Governor Anderson and provides an over-all state water pollution control program for the waters of the state and those bordering the state. This then gives not only Federal but also state authority for pollution abatement.

Conferences and meetings have been held with representatives of all communities regarding this problem. All are cognizant and with the exception of one community all have agreed to the setting up of a program. Engineers are now making studies at Blair, Omaha, and Nebraska City. Preliminary reports have been prepared by the cities of Plattsmouth and Bellevue. Plans for treatment of sewage from at least one outfall are being drawn up by the City of Omaha. Resolutions for completion of studies leading to the construction of plants to treat all sewage discharged by Omaha have been adopted by the Omaha Sanitation Commission. Sewer service charges are being collected by several communities.

It is, therefore, my opinion that the program is well on its way, even though no official orders have been given.

The progress of this program will depend upon initial construction by the larger cities and also the understanding that no partiality will be shown to any community, but that treatment will be required by a certain date by all contributors of pollution. The interstate agreement of September 15, 1953, should be re-affirmed and perhaps revised in light of current laws to act as a guide in setting up definite target dates. The target dates set up by this conference should be given publicity to advise each community of the over-all program to permit them to set up details of compliance.

In Nebraska there is a complete understanding of the problem. There is now needed only the setting up of a definite over-all program which must specifically be followed.

Exhibit A

SUMMARY OF CONFERENCE, STATE SANITARY ENGINEERS, LOWER MISSOURI BASIN WITH THE DRAINAGE BASIN ENGINEER

Omaha, Nebraska

September 15, 1953

The State Sanitary Engineers of Iowa, Kansas, Missouri, Nebraska, and South Dakota, in a meeting of September 15 at Omaha, Nebraska, with the Drainage Basin Engineer, reached agreement with respect to a uniform abatement program for pollution entering the Main Stem of the Missouri River (Randall Dam to the Kansas River, inclusive) as follows:

1. Each State agreed to pursue, within the framework of its State-wide program of pollution abatement directed to secure treatment of sewage and industrial wastes as outlined in the Lower Missouri Report issued cooperatively by the 5 States and the Public Health Service. Guidelines for the program as agreed upon by the 5 State Sanitary Engineers are attached hereto.

2. The principal objective of treatment is the improvement of raw water quality for domestic use. Removal of settleable and floating solids shall be considered the minimum accepted treatment. In the review of plans and specifications, each State agreed that consideration shall be given to programs of waste salvage, improved housekeeping, fine screening, pre-treatment, or other control of plating, packing house and other concentrated industrial wastes as necessary to insure reasonable reduction of toxic materials, oils, acids, alkalies, blood, grease, offal, scraps, paunch manure, and other objectionable matter. Supervision and control of waste reduction programs for industrial wastes entering a municipal system shall be the responsibility of the municipality.

3. As possible the States will undertake collection of additional basic data aimed to permit maximum feasible evaluation of: (a) Existing pollution; (b) reduction in the pollution by waste treatment; (c) significance of residual pollution; (d) validity of current bacterial standards relating to raw water, and (e) related factors. Long range programs of coliform MPN analyses will be established at this time as possible at principal water plants, and if feasible, at one location in the upstream portion of the river reach.

The comprehensive program for control of water pollution in the Missouri Basin, to be adopted by the Surgeon General and now in process of review by State and Federal agencies, proposes to adopt programs as developed by the Missouri Basin States, and shown in sub-basin reports previously issued. The cooperative report for the Lower Missouri Basin recommends primary treatment for the interstate portion of the Missouri River. The States participating will therefore undertake the program as outlined above with the understanding that same conforms to the comprehensive program to be adopted by the Surgeon General as reasonable, adequate, giving due consideration to existing and reasonable anticipated future uses of water in the Missouri River, and other wise fully meeting the requirements of the Federal Water Pollution Control Act.

While complete agreement was not reached, it was the opinion of the majority of State Sanitary Engineers present that continued use of existing combined sewers should be permitted if provision is made to carry up to three times normal flow through the treatment plant,bypassing to the river flow in excess of that amount. Three times normal flow, as the most generally used factor, was thus considered a reasonable objective for main stem systems.

UNIFORM PROGRAM FOR ABATEMENT OF INTERSTATE POLLUTION IN THE MAIN STEM, LOWER MISSOURI RIVER, AS AGREED TO BY THE STATE SANITARY ENGINEERS OF IOWA, KANSAS, MISSOURI, NEBRASKA AND SOUTH DAKOTA

Within the framework of prevailing program practices and existing program procedures, the State Sanitary Engineers of the 5 States agree to undertake the following program for treatment of sewage and industrial wastes entering the interstate portion of the Lower Missouri River.

Step I

On or about November 1 each State will submit a report to its respective municipalities and industries:

(A) Advising of the uniform program being initiated by each of the 5 States.

(B) Calling Attention to heavy bacterial pollution existing at water supply intakes, as reported in the Lower Missouri Report pursuant to cooperative investigation undertaken by the 5 States and the Public Health Service.

(C) Recommend early initiation of a realistic and orderly program of planning, financing, and constructing remedial works.

(D) Requesting prompt fulfillment of such a program.

Step 2

On or about December 1, the Public Health Service will direct a letter to each State Health Officer, making reference to the Lower Missouri Report and interstate pollution as outlined in State evaluations prepared by the Basin Office in August, 1953, and suggesting appropriate State action to abate interstate pollution.

Step 3

On or about January 1 each State will, at its discretion:

(A) Notify respective municipalities and industries of the Public Health Service letter, and advise of the provision of Public

Law 845 and the resultant reinforcement of State abatement programs, and

(B) Request that the State agency be advised (at intervals to be determined by the States) of progress made in securing abatement.

Step 4

Each State pursue the normal program and administrative procedures prevailing in the State as necessary to keep the movement going, and make appropriate follow-up of Step 3, as meetings with City Council, hearing, etc., as deemed proper and advisable.

Step 5

About January, 1955, the States and the Public Health Service will make appropriate joint review of progress by each locality with future "progress evaluation" reviews as circumstances justify.

Step 6

At such time as joint State-Federal progress reviews indicate the enforcement program of a State to be unsuccessful (particularly where State Laws or programs appear inadequate to keep up with progress in the remainder of the stream reach), the Public Health Service will initiate enforcement proceedings as provided for in the Federal Water Pollution Control Act in the interest of maintaining a reasonable balance of program throughout the interstate portion of the stream. Federal actions should be closely coordinated with State action and it would be desirable for the States and the Public Health Service to jointly review proposed federal actions prior to their initiation.

- - -

CHAIRMAN STEIN: Thank you.

Are there any comments or questions to Mr. Filipi on this statement?

Mr. Smith?

MR. SMITH: I would like to ask a question. Does Omaha now collect a sewer service charge?

MR. FILIPI: Mayor Rosenblatt?

MAYOR ROSENBLATT: Yes.

CHAIRMAN STEIN: Are there any more questions or comments?

Thank you, Mr. Filipi.

I would like now to call on Mr. Hodgkinson of Kansas to speak on the effects of pollution on present and potential water uses in Kansas.

Mr. Hodgkinson.

Before you start, I would like to have this statement marked as Exhibit KC-1.

Mr. Hodgkinson.

MR. HODGKINSON: Mr. Chairman, the State of Kansas is concerned about the pollution of the Missouri River by municipal and industrial wastes discharged at Omaha, Nebraska. This pollution affects several beneficial water uses, but our chief concern is the protection of the Missouri River as a source of municipal water supply for the cities of Atchison, Leavenworth, and Kansas City, Kansas.

Samples collected from the Atchison raw water intake in 1950 had an average coliform index of 70,000 per 100 milliliters. Of the samples collected from 1954 to this year, 7 percent had a coliform density over 100,000 per milliliter, 15 percent over 50,000 and 36 percent had an index over 20,000. At Kansas City, Kansas, where long-term records are available, the average annual coliform concentration increased from 6,000 to 73,000 or a 12-fold increase in 30 years. A plotting of the coliform concentration of the Kansas City raw water against years shows a very definite, gradual and upward trend over the period of record. This trend is comparable with municipal and industrial growth along the main stem of the lower Missouri, which would indicate that the coliform index can be expected to continue to increase unless adequate waste treatment is provided.

Obviously the wastes discharged in Omaha are not solely responsible for contamination of the raw water supplies for Atchison, Leavenworth, and Kansas City. However, it is our opinion, based on the report of the water pollution investigation of the Lower Missouri River Basin prepared by the U. S. Public Health Service and six cooperating state agencies, that Omaha is a major source of this contamination and the residual effects of pollution discharged upstream are noticeable at the raw water intakes in Kansas.

According to drinking water standards adopted by the State of Kansas, the U. S. Public Health Service and most of the state agencies, the raw water coliform density should not exceed 20,000 per 100 milliliters when a modern, complete treatment plant is provided. By extensive and efficient use of chlorination it is possible to treat water containing 20,000 coliforms per 100 milliliters. However, chlorination becomes the only line of defense as the coliform density increases. Since chlorination is accomplished by man-made and man-operated machines and is therefore subject to malfunction, the hazard to the health of the public drinking the water becomes much greater as the number of coliform organisms increases.

Damages to other beneficial water uses have not been as significant as the municipal water supply problem but are worthy of consideration. Sportsmen have complained about the effects of pollution on fish and wildlife. Livestock watering has been impaired at times and the aesthetic values associated with a clean stream and healthful environment have been adversely affected.

The people of Kansas have demonstrated their desire to clean up the streams of the state. Thirty-four sewage treatment plant projects are under construction at the present time, while 36 plants were completed in 1956; an average of 25 projects have been completed each year for the past five years. Atchison and Leavenworth are committed to having a treatment plant under construction by January 1, 1959, on the assumption that adequate treatment facilities will be provided for the larger sources of pollution on the Missouri River. Kansas City, Kansas, has construction under way to provide interceptor sewers and provide for the separation of storm and sanitary flow in preparation for sewage treatment plant construction. Permits issued to Kansas City, Kansas, to discharge untreated sewage to the Missouri River will expire on January 1, 1960.

CHAIRMAN STEIN: Thank you, Mr. Hodgkinson.

Are there any questions or comments of Mr. Hodgkinson?

MR. HOPKINS: Yes, Sir.

Mr. Hodgkinson, would you refer to the second page of your statement? You read a coliform level of 200,000. I believe your text is 20,000.

MR. HODGKINSON: I am sorry.

MR. HOPKINS: Will you verify that?

MR. HODGKINSON: 20,000 is correct. Thank you.

CHAIRMAN STEIN: Are there any further questions or comments?

If not, may we hear from Mr. Houser of Iowa on the effects of pollution on present and potential water uses in Iowa.

MR. HOUSER: I have written statement for the record and then I would like to make a few remarks that I do not have a statement on.

CHAIRMAN STEIN: Before we start, can we mark Mr. Houser's statement as IC-1.

Thank you, Mr. Houser.

MR. HOUSER: The State of Iowa is mainly concerned with three aspects of the pollution of the Missouri River as applied to the City of Omaha, namely, (1) the effects of sewage and wastes discharged from the Minne Lusa outlet above the City of Council Bluffs water supply intake, (2) the effects on the recreational use below all sewer outlets, and (3) the effects on commercial fishing below all sewer outlets.

The water purification process at Council Bluffs involves more than the minimum for river waters, being composed of pre-settling, pre-chlorination, chemical flocculation, clarification by settling, filtration, and post chlorination. In developing a stream pollution control program for the Missouri River, the states in the Basin and the Public Health Service agreed on water quality objectives that include the generally accepted standard that the average monthly coliform index should not exceed 20,000 per 100 milliliters in more than 5 percent of the samples in any one month for raw water supplies subjected to this type of treatment process. Samples of river water taken from the water works intake over a period of several years have shown the coliform index to exceed this amount quite regularly. In fact, the average number of coliform organisms in samples collected during the past two years have been equal to or exceeded this number in all months except one. These samples have also indicated the maximum number of coliform organisms in any one sample to be greater than 110,000 per 100 milliliters.

In making this statement and quoting these figures, we do not infer that the finished water as leaving the purification plant is unsafe as a public water supply. We do feel, however, that the bacterial load on the purification process is more than desirable. We further feel that the sewage from the Omaha sewer outlet above the water works intake contributes heavily to this load.

In the past, the recreational use of the river has been quite limited. However, with the channel stabilization construction program and maintenance of a higher low flow, the recreational use has increased considerably and conservation interests predict that the increase will be at a much higher rate in the future. People using the stream for such recreation as boating, fishing, water sports, and other similar activities are subjected to some degree of health hazard and with the discharge of untreated sewage into the stream the hazard is increased many fold.

Further remarks on the effects of the existing pollution on the recreational use of the river and on commercial fishing will be presented by Mr. James Harlan, Assistant Director of the Iowa State Conservation Commission.

I think, Mr. Chairman, that I would like to have Mr. Harlan present his remarks now and then if you will give me a moment or two after that I would like to make some other remarks that are not a part of the statement.

CHAIRMAN STEIN: Fine. Thank you.

Mr. Harlan.

MR. HARLAN: Mr. Chairman, Mr. Mayor, Conferees.

With the stabilization of the Missouri River channel and resultant clarification of the water the river is being utilized for recreation far beyond anything envisioned even five years ago. This holds true only in those portions of the river that are relatively unpolluted.

The Army developments that are making the use of the river possible have or are destroying the major oxbow lakes in the valley that in past times have provided most of the water recreation in Western Iowa. The loss of these lakes makes the value of the river for recreation greater than ever.

River recreation south of Omaha is almost non-existent because of pollution from municipal and industrial sources. With control of this contamination, the Missouri River in the opinion of qualified authorities will become a recreation paradise. Conservation and sportsmen's groups in western Iowa are aware of these values and are greatly concerned about pollution control.

The river below Omaha is very badly polluted. I have been on the bottoms when the stench from the stream could be smelled long distances. I have seen patches of floating grease solid enough for crows to ride on in the current. I have tasted catfish taken from the stream below Omaha that were inedible because of a kerosene-like taste.

I have been advised by our conservation officers who are constantly working along the river and in daily contact with the people there that there is little fishing below Omaha except by people in the lowest income bracket because of the foul condition of the river and the fact that the fish have a gassy taste. Our officers have also advised that often fish taken commercially are unmarketable because of the taste of gas.

Because of the gassy taste of fish taken from the polluted waters commercial fishing is relatively unimportant. However, stabilization of the river in the opinion of biologists has been of great benefit to fish life and an explosive increase of fish is expected. With effective pollution control commercial fishing on the Missouri River would become an important source of food and revenue.

Our conservation officer in Mills County has advised me that his many hunting, boating and fishing enthusiasts are pinning more and more hope on the river as a place for recreation, that the river work has cleared up much of the silt, but that industrial and domestic pollution has become more and more apparent with raw domestic sewage and industrial wastes, including oil, grease, chemical residue and stockyard wastes, making the stream practically unuseable.

He advises that the river actually smells, that the pollution is visible, that the commercial fishermen's nets are filthy when they are raised and festooned with toilet paper and covered with slime and that the fish have a disagreeable oily taste.

He also advises that he has seen catfish with stomachs full of hog roundworms obtained in sewage from the packing houses.

I am advised by our officers that fishing is much better and much more common above Omaha and the fish edible. They also note that there is increased interest since stabilization of the river in cottages, boating, fishing, and hunting, and that Omaha pollution is destroying the hopes of these people for clean water recreation.

The State Conservation Commission in its endeavor to increase outdoor recreation opportunities is aware of the recreational possibilities of the river, recognizes the destruction of these potentials by pollution, and is hoping to see prompt action in the abatement of the Omaha pollution nuisance.

CHAIRMAN STEIN: Thank you, Mr. Harlan.

Will you identify Mr. Harlan's statement as IC-2.

MR. HOUSER: Mr. Chairman, I would like to add further that the cities in Iowa that have been mentioned heretofore, Sioux City, Council Bluffs, and Carter Lake, have pledged their support officially to a clean-up program of the Missouri River. At Sioux City the State Department of Health of Iowa conducted an investigation of the pollution of the waters, including the Floyd River and Perry Creek, in addition to information obtained from the five states serving the Missouri River, conducted a hearing. At the conclusion of the hearing the city officials adopted a resolution requiring the engaging of engineering services, a study of existing sewer systems, a sampling program to determine design data for a sewage treatment plant, and finally a contract award date for January 1, 1959.

Progress reports submitted by the city have indicated that those studies are going forward.

At Council Bluffs in July of 1954 the City Council adopted a resolution which recognized the pollution condition of the Missouri River and recognized that Council Bluffs was contributing to that pollution, and agreed that the city would proceed along with the other cities in constructing sewage treatment facilities. Plans for a sewage treatment plant at Council Bluffs had been previously prepared.

At Carter Lake a resolution adopted in May of 1954 similarly endorsed a program of cooperation by that city in clean-up and stated that the town of Carter Lake would cooperate with the construction of those treatment facilities along with the other cities.

CHAIRMAN STEIN: Thank you, Mr. Houser.

Are there any comments or questions either to Mr. Houser or Mr. Harlan?

If not, I should like to hear now from Mr. Happy of Missouri.

Mr. Happy.

MR. HAPPY: Mr. Chairman, I should like to ask Mr. Jack Smith of our agency to read the statement of the Missouri Division of Health.

CHAIRMAN STEIN: Thank you, Mr. Happy.

May we mark this statement MC-1.

MR. SMITH: Mr. Chairman, members of the conference, Mayor Rosenblatt.

The Missouri Division of Health as the official water pollution control agency of the State of Missouri is deeply concerned about pollution caused by the discharge of municipal and industrial wastes at Omaha, Nebraska. The Division of Health's primary concern is the protection of the Missouri River as a source of municipal water supply for the cities of St. Joseph and Kansas City. Other water uses which are adversely affected include industrial water supplies, fish and wildlife, and recreation. Samples collected at the Kansas City, Missouri, water intake reveal that the annual average coliform content of the raw water has increased tenfold since 1900. More recent sampling and analyses at the St. Joseph, Missouri, water intake reveal that during the years 1955 and 1956 the average coliform index is above that considered acceptable for raw water supplies by the Public Health Service. Average monthly coliform indices exceeded the maximum recommended limit of 20,000 coliform per milliliter during all months of 1955 and 1956 except the winter months of December 1955 and January 1956. Generally accepted drinking water standards as adopted by the U. S. Public Health Service establish that the raw water coliform density should not exceed 20,000 per milliliter when a complete treatment plant is provided. Raw waters containing coliform densities in excess of this number require secondary and tertiary treatment. The commonly employed treatment methods are mechanical in nature and chlorination constitutes the only line of defense as the coliform density increases. It is obvious that the hazard to the health of the public drinking the water will be increased since the mechanical treatment devices are subject to breakdown and inferior operational practices.

The Missouri Conservation Commission reports that waterfowl are affected by the presence of grease, oil, and other industrial wastes in the reaches of the Missouri River bordering the State of Missouri. While no investigations have been made above the City of St. Joseph into the effect of pollution on fishlife, it is safe to assume that the presence of wastes in sufficient quantity to affect waterfowl could also be shown to have a deleterious effect in the propagation of fish. The presence of floating oil and greases also discourages use of the streams for boating, swimming, and other recreational uses. The Missouri Division of Resources and Development has stated that they hesitate to recommend that industries locate on the Missouri River above Kansas City due to the difficulty which might be encountered in treating Missouri River water for industrial purposes, and due to the unsatisfactory condition caused by sludge banks and other waste deposits on the shoreline. The people of the State of Missouri have demonstrated a desire to clean up the streams of the State. Those cities discharging wastes to the Missouri River have begun studies and are developing plans to abate pollution sources for which they are responsible. The City of St. Joseph at a similar conference' held Tuesday, June 11, suggested the arrangement of financing by January 1, 1958, the completion of detailed plans by June 30, 1958, and the awarding of contracts by January 1, 1959, as a schedule for pollution abatement which they intend to follow. The City of Kansas City, Missouri, has employed engineers for the purpose of preparing a report on sewers, interception, and sewage treatment for the city and adjoining area, and the City of North Kansas City has ordered the preparation of detailed plans and specifications for abatement works.

The future offers bright prospects for economic development of the Missouri River Basin. It is anticipated that the population of those cities bordering the Missouri River will continue to increase and that industrial development in these cities will continue to expand, provided the water quality of the river can be improved and maintained at a sufficiently high level to encourage this economic growth. The Missouri Division of Health believes that the problem is one which extends to all cities located on the Missouri River and that a uniform and coordinated approach to the abatement of pollution is essential to assure continued economic development of the Basin.

CHAIRMAN STEIN: Thank you, Mr. Smith.

Are there any comments or questions to Mr. Smith?

If not, we will proceed to the next part of the agenda dealing with adequacy of measures taken toward abatement and nature of delays.

At this point I should like again to call on Mr. Filipi of Nebraska.

Mr. Filipi, you may wish now to call upon people you have invited to aid in this presentation.

Mr. Filipi.

MR. FILIPI: Mr. Chairman, at this time I would like to call on Mayor Rosenblatt to present the program that is now under consideration by the City of Omaha, or anyone he may choose to select.

MAYOR ROSENBLATT: Thank you.

Mr. Chairman, members of this conference.

The people of Omaha are very much aware of the importance of the problem that confronts the respective states that abut the Missouri River. The Missouri River is one of the great vehicles of the world and must be given that proper attention. The people of Omaha have done so, have indicated it accurately.

I hope that the states abutting the Missouri River will follow suit in augmenting those plans that are necessary in abating the nuisance from polluting the river.

Several years ago when the Federal and State authorities came to the City of Omaha we pledged our assistance and cooperation. We have kept our word. The people of Omaha today have set up a sewer fee program, those monies to be used for the building of sewage disposal plants as well as improving the sewer system. The City of Omaha has also made possible three million dollars in revenue bonds to finance an immediate augmentation of its present treatment plant, one of the few treatment plants on the Missouri River, that today takes care of well over 100,000 people.

Our plans call for the building onto this present treatment plant, which will be given to you in clear detail by members of our engineering department in a few minutes. We also have in the planning another treatment plant covering the Minne Lusa area that has been referred to.

And I might say to you that the people of Omaha have gone far and are a typical example of a great city building a greater America in bringing forward a plan, a blueprint, if you please, for the future of our community, the Mayor's City-Wide Plan, and in this plan it sets up a program of sanitation, a plan that will be given to the people of Omaha in the immediate future for further financing other than the sewer fee and the revenue bonds already issued, calling, for example, for 23 million dollars additional for sewage disposal plants and also some 19 million for storm and sanitary sewers.

Let me also remind you and tell you that we have one of the few huge incinerators on the Missouri River, that tends to decrease the discharge of nuisance into the

Missouri River. We have a some 400-ton incinerator, costing well over a million dollars, to catch much refuse that used to find its way into the river. So we do have two vehicles in the City of Omaha to abate the nuisances from entering the Missouri River.

We want our good neighbors up and down the Missouri to know that Omaha is not only pledged but dedicated to a program and does have actual proof, and the plans for the immediate future that have been asked for by the state and federal authorities will be given in a few minutes by various people representing our engineering department as well as consulting engineers working with the City of Omaha in this program. And I hope that our good friends to the north of us and to the south of us will begin, too, to give to the planning in the future, of the Missouri, Mr. Chairman, what the people of Omaha have already established up to this present moment.

Now I would like to ask, Mr. Chairman, that we be allowed to present our City Engineer, Mr. Ed Woodbridge, who will call upon various peoples to make proper reports informative to the question as well as the problem that concerns this conference.

CHAIRMAN STEIN: Thank you.

Mr. Woodbridge.

MR. E. W. WOODBRIDGE: At this time I would like to present Mr. Herbert Ulrich, who is directing the billing and collection of the sewer service fees. He will explain that to you.

MR. ULRICH: My name is Herbert Ulrich and I am Sanitation Engineer.

The City of Omaha as far back as 1948, and even prior, began to make a concerted study of the problem, especially as the nature of the problem became more evident to the management of the City and the people themselves. The common bugbear that you always run into in these matters was run into in Omaha and that is the question of financing. Much thought was given to a means by which we could finance the various proposals necessary to solve our ills here, and as far back as 1953, starting about 1952, a committee, a steering committee, in order to determine what the nature of financing should be for Omaha's sewerage improvements, was headed with a joint study on the part of a committee working under the Omaha Improvement Commission and the Sanitation Commission, headed by one A. L. Turner and Mr. Leigh, Mr. Sawtell and Mr. Snow. These were individuals not on retainer that made this study into the nature of our problem and the possible means of financing.

They made a rather brief or quite a pointed study, but necessarily brief in nature, but it did point the way toward the sewer use fee as being probably the answer, even though every other route was studied. This perhaps was the entering wedge on it and sometime later in 1955, these things having been considered and related to our problem in construction, in 1955 the City did retain the firm of Henningson, Durham & Richardson, Consulting Engineers, to further go into this study of financing and they came out in 195 with this complete report on the financing problem of the City of Omaha, the various routes by which it might be undertaken, and a direct recommendation as to the use. Again the method under point in this report is the sewerage service charge.

Accordingly, last year I was directed to start setting up the mechanics of sewer service charge collection and in October of last year that was done. The process is still building up, but I am happy to say at this time that our daily receipts of revenues from the sewer service charge have run as high as $5,000 a day, which as the program grows you can see there will be a lot of money come in for either the acquisition of revenue bonds or funds otherwise as may be necessary to improve Omaha's program.

The gross revenue we presume to be in the neighborhood of $850,000 per year. As you can see, when we hit these $5,000 a day marks we are exceeding the rate, as far as that is concerned. We do feel that we have a basic and a solid pattern on which to finance our improvements and I do believe that the city can go forth from here with a solid measure, a solid study on financing to correct these various problems which have been under study.'

Thank you.

CHAIRMAN STEIN: Thank you.

Mr. Ulrich, I thought that perhaps we might wait until everyone was finished, but I think if we are going to take up the segments it might be better to ask questions now.

Mr. Smith.

MR. SMITH: What I wanted to ask Mr. Ulrich was, is this sewer service charge based on volume or strength? I am thinking particularly of industries. Do you collect the service charge from industry?

MR. ULRICH: Yes.

MR. SMITH: What is the basis of that charge?

MR. ULRICH: The basis of the sewer service charge in Omaha is a flat rate for domestic for individual homes, and that is 80 cents a month. Multiple housing takes a different rate. Any house containing more than one actual family or an unrelated group of people, shall we say, known as multiple housing, it is $1 for the first 500 cubic feet and 25 percent of the remainder of the cost of the water used.

On industry, or industrial water use the sewer service charge is based on $1 for the first 500 cubic feet of water used, plus 15 percent of the remainder of the water cost.

CHAIRMAN STEIN: Mr. Ulrich, would you care to indicate what, in your opinion, the sewer service charges would support in the way of a bond issue, a bond issue of what magnitude?

MR. ULRICH: Sir, we have following speakers who will dwell on that.

CHAIRMAN STEIN: All right.

MR. ULRICH: And since there is immediate interest I would rather refer that to Mr. DeBord.

CHAIRMAN STEIN: All right.

MR. SMITH: One other question. Is this charge made for everybody in the city? is that made for everybody?

MR. ULRICH: There is no exception given in the ordinance.

CHAIRMAN STEIN: Mr. Hopkins?

MR. ULRICH: There are, however, some mill levy limits in it in some cases. In some cases the fee can not exceed a three-mill levy on the value of the property.

MR HOPKINS: Mr. Ulrich, this comment or question: Is it not true that should the sewer service charges as now in effect need adjustment that the City of Omaha can adjust those without further vote of the people?

MR ULRICH: It is my opinion that the -- not a legal opinion, but it is my understanding that the rate on sewer service charge could be adjusted by Council action.

MR. HOPKINS: The election that was held did not limit the charges to the present level?

MR. ULRICH: That would be a legal question, sir. But it is my impression that the Council has full authority to act with the mandate that they received from the people.

CHAIRMAN STEIN: Are there any further questions of Mr. Ulrich?

Thank you, sir.

MR. ULRICH: Yes, sir.

MR. WOODBRIDGE: At this time I would like to present Mr. Charles W. Durham, President of Henningson, Durham and Richardson, Consulting Engineers, who are making studies with reference to this subject for the expansion of the Papillion Creek sewage treatment plant, and Mr. Durham will explain to you what has been done and what is being done now.

At this time I would like to present Mr. Durham.

MR. DURHAM: Gentlemen, I would sort of like to review the over-all problems that face Omaha in connection with the solution of this problem of sewage treatment and disposal.

First of all, we were retained by the city in 1952 to make a study of the city's sewer system and that work took roughly a year and we developed a report, I have it here, which has served as a basis for the development of its internal sewer development program. This report deals only with the sewers in the city. At that time we did not study the construction of interceptor sewers and sewage treatment plants along the river, with the exception that we have made some over-all conclusions, some statements as to what we thought the cost might be at some time in the future that the city actually proceeded with this plan.

Again in 1955, as Mr. Ulrich has stated, we were retained by the city to work out a program of financing the city's program of sewer construction and we recommended a sewer service charge to raise the money, roughly one-half from a sewer service charge and one-half from an increase in the mill levy by general taxation. Our program gave the city two choices: One, they could proceed on the basis of this mill levy plus a revenue bond issue, or at their option they can put the program on a pay-as-you-go basis and build it with increments over a period of years.

Since 1955 the picture has been changed to this extent. The Federal Government has passed Public Law 660 and the program of stopping pollution of interstate streams has been expedited.

Now, I am going to devote my remarks to what the City of Omaha is doing at the present time relative to stopping stream pollution, and I will first take up the Papillion Creek sewage treatment plant.

That plant serves all of the area of the city as shown -- Well, first of all, gentlemen, this is a map of the City of Omaha. It shows certain things pertinent to the question. This (indicating) is the Missouri River. This (indicating) is Carter Lake. This (indicating) all of the white area, drains directly into the Missouri River. All of the colored area of the city (indicating), the present city limits are shown by this heavy line (indicating) coming around here, certain growing areas of the city are shown by this darker colored orange or yellow color (indicating), this (indicating) is area in which future growth to the city will occur.

The Papillion Creek sewage treatment plant is located right where my pencil is right now (indicating) on this black dot called the southwest plant and there is a circle 1 here (indicating) which refers to Project 1 of the schedule which I will present in a few minutes. This plant at the present time is handling sewage from a population equivalent of roughly 60 to 80 thousand people and the city at the present time has sold three million dollars in revenue bonds and has committed itself to a program of enlarging this plant to take care of the future growth and development in this general area. You see, that is a pretty big area. It also adopted the over-all program that eventually this one sewage treatment plant will serve the entire area of West Omaha.

At the present time there are two other plants. There is a small one up here (indicating) for Sanitary District No. 20, that is located up near 90th and Fort Streets, and then there is Sanitary District No. 6 plant located here (indicating) near 84th and Hascall Streets. Eventually these plants will be abandoned and all the sewage from West Omaha will be treated in the Papillion Creek sewage treatment plant.

Now, we have here an artist's conception of this plant after it is enlarged, and the enlargement roughly consists of a duplication of the present units. This is merely a picture, but the important thing is that the city has definitely committed itself to this program. Plans and specifications will be completed on or about September of this year, and we can see no reason why a contract can not be awarded sometime on or about the first of next year.

This plant, Project 1, is different from the two other plants proposed for Omaha because it requires a high degree of treatment, very complete treatment. It discharges into Papillion Creek, which flows some miles down, 10 or 15 miles, before it reaches the river, and the area through which it flows is an important area insofar as the treatment required.

Now let's focus our attention on the length of the Missouri River (indicating). We have here scheduled for Omaha four projects designated as Project No. 2, which is the North Omaha interceptor sewer, Project 3, which is the North Omaha or Minne Lusa sewage treatment plant, Project 4, which is the South Omaha interceptor sewer, and Project 5, which is the South Omaha sewage treatment plant.

Now, the city has committed itself to this extent for Projects 2 and 3. They have authorized the preliminary studies and preliminary planning of these projects. I would like to also point out, gentlemen, that these projects are -- due to the growth of the built-up area problems involved take considerable time for the preliminary studies. Each individual sewer outlet has to be studied separately, tests of the sewage have to be made over periods of time, biochemical oxygen demands, suspended solids; you might say tests have to be made of the sewage to determine the basis for the plant design. All those things require time and this work is now in progress. It is scheduled that a complete engineering report on Projects 2 and 3 will be available and presented to the city on or about September of this year. In other words, that schedule of the preliminary work on Projects 2 and 3 will be forthcoming about the same time as final plans and specifications will be out on Project No. 1.

Now, on Projects 4 and 5 very little work except, you might say, of a pre-preliminary nature has been accomplished, and that is the next step for the city to start the development of Projects 4 and 5 in the preliminary stages.

As you know, Omaha has recently adopted a new city charter and this charter is in effect less than a month. We have a new form of government here. But a significant fact was when the old form of government went out of office one of their recommendations at their final meeting was for the new City Council to consider immediately starting studies on Projects 4 and 5, which is the South Omaha situation.

Now, gentlemen, I would like to present to you this schedule, but before I do I believe I have neglected one other point which I would like to briefly mention. Originally we planned or we at least thought of three plants along the Missouri River, one located up here (indicating) north of Carter Lake in Minne Lusa. We referred to it as the Minne Lusa sewage treatment plant. However, due to the fact that Mr. Houser has evidenced the desire to have no pollution of the Missouri River above the Council Bluffs water intake we have changed our preliminary thinking and developed a plan which we believe will be much better from an over-all standpoint for both cities. This plan is for building an interceptor down here (indicating) to roughly the location indicated here (indicating), which is near the Omaha incinerator, and having two plants along the Missouri River instead of three.

Gentlemen, I have a program or a schedule of sewer construction for the City of Omaha, and I would like to point out that this schedule is predicated upon the -- It won't be necessary to read the schedule.

(which said schedule is as follows:)

Item No.	Segment of Over-all Project	Latest Date for Completing			
		Preliminary Plan	Site and/or Right of Way Acq.	Final Plans	Contract Awards
1	Papillion Creek Plant Improvement	Now Finished	Now Finished	9-1-57	1-1-58
2	North Omaha Interceptor Sewers (Burt-Izzard and above)	7-1-57	1-1-58	7-1-58	1-1-59
3	North Omaha Plant	7-1-57	1-1-58	10-1-58	4-1-59
4	South Omaha Interceptors Sewers (All below Douglas St. Bridge)	4-1-58*	1-1-58	10-1-59	4-1-60
5	South Omaha Plant	10-1-58*	7-1-58	10-1-60	5-1-61

*Would require notice to proceed by 5-15-57

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MR. DURHAM: I have no doubt that the question is going to arise couldn't some of these dates be expedited, and there is no question, they could be expedited. The over-all schedule calls for having all this work under construction roughly in four years. This schedule could be expedited to three years. However, I think in establishing these schedules it is better to be realistic. We always have things come up in municipal government, these programs have to be sold to the people, they have to be explained to the people, studies have to be made, and public acceptance of programs many times takes longer than the actual engineering work. We have found that true to date in our work here in Omaha. And we have established those schedules with that in mind. From a purely technical standpoint or a construction standpoint the schedule could be advanced, possibly expedited by a year, but from a practical standpoint we question the desirability of advancing that schedule. However, I would be very happy or we would be very happy to discuss that with you.

That just about concludes my remarks on the subject. This is a very large program. There are some very complicated engineering and construction problems involved, but the city has recognized this in its over-all plan and recognized the problems of financing. It can be financed, it can be worked out, and I believe from my own impression and experience that there is every indication on the part of the Omaha citizens to do so. I believe that was evidenced by the remarks of our Mayor a few minutes ago.

Thank you.

CHAIRMAN STEIN: Thank you, Mr. Durham.

Are there any questions or comments of Mr. Durham by the conferees?

Mr. Smith.

MR. SMITH: I would like to ask, Projects 2 and 3, you mentioned that samples were necessary. Do you have some industry in that area?

MR DURHAM: Some

MR. SMITH: Some?

MR. DURHAM: The heavy industry is down in Projects 4 and 5. In other words, Projects 2 and 3 will be relatively small in comparison to Projects 4 and 5.

MR. SMITH: What is the population equivalent of the capacity of the North Omaha plant?

MR. DURHAM: Our studies aren't complete on that, but I would say that it would be somewhere in the neighborhood of a hundred fifty to two hundred thousand people.

CHAIRMAN STEIN: Mr. Hopkins.

MR. HOPKINS: Mr. Durham.

MR. DURHAM: Yes, Mr. Hopkins.

MR. HOPKINS: I realize that industrial wastes constitute an important segment of Project No. 5. Has liaison and negotiation with the contributing industries been initiated or is that a part of the more detailed study that you mentioned was waiting authorization?

MR. DURHAM: Mr. DeBord is going to take Projects 4 and 5 up in a little more detail as part of the City's presentation, so I would like to have that question held for him.

MR. HOPKINS: All right.

CHAIRMAN STEIN: Are there any further questions of Mr. Durham?

Mr. Hodgkinson.

MR. HODGKINSON: Are all of these plans in existence and the studies that have been completed based on combined sewage and storm water or is this including a separation program?

MR. DURHAM: On Project 1, the southwest plant, that particular plant is in existence and fundamentally we have in West Omaha separate systems of sewage, sewage systems, separate storms and separate sanitary. However, there is some combined waste in the sanitary system. But in general in West Omaha we have separate systems.

In East Omaha, in the area shown in white (indicating) it is all combined sewers and the city under no circumstances would find it economically feasible to build entirely new sewer systems and separate them in that manner. So in the design of these plants we have to pick a dilution factor and design the plants on the basis of when the combined sewers reach a certain discharge into the effect of run-off, rain water. These plants will treat that discharge up to that point, then the overage would go on through the river. Those matters have already been discussed with Mr. Houser and the program that we will follow will be consistent in that regard. But during periods of run-off we will have treatment by dilution.

CHAIRMAN STEIN: Mr. Houser.

MR. HOUSER: Perhaps this question can be answered later, Mr. Durham, but I am wondering, in the interceptor sewer will there be any industries that will provide their own treatment or will they all be picked up by the interceptor sewers to go to the plant?

MR. DURHAM: Well, at the present time I know of no industries that would be required to provide their own treatment. We would like to avoid that if possible.

CHAIRMAN STEIN: Are there any other further questions of Mr. Durham?

If not, thank you very much, Mr. Durham for your presentation.

Mr. Woodbridge, do you have something else?

MR. WOODBRIDGE: Yes. I would like at this time to call on Mr. D. P. DeBord, Acting City Engineer. He wants to give you some discussion on Projects 4 and 5.

MR. DE BORD: Perhaps it would be well to describe the formal function of the Sanitation Commission which has been mentioned several times by previous speakers. That was a Commission legally constituted here in Omaha that had the responsibility of the design, the planning, construction and the maintenance of sewers, of sewerage treatment plants, of general sanitation problems, excluding all of the sanitation problems that are handled by the City and County Health Department. They have gone out of existence as of May 27 and during the meeting of May they recommended to the City Council that provisions be made to retain engineering services to complete the preliminary studies necessary for the design and location of this interceptor (indicating) and this plant (indicating).

During the Mayor's talk he, I believe, mentioned briefly that he was going to implement this new city-wide planning and developing program by getting additional people on his particular staff, citizens throughout the city, to assist in developing the method of financing the balance of the program. So Projects 4 and 5 are not firmed up as of this date financially, and you will see on the bottom of that schedule there is a notation, "Would require notice to proceed by July 15, 1957," which will mean the preliminary planning of Projects 4 and 5. We do hope that that date can be met, planning can be started and the subsequent plans for actual financing completed.

That is about all I have.

CHAIRMAN STEIN: Thank you, Mr. DeBord.

Are there any questions of Mr. De Bord?

MR. SMITH: I would like to ask about this incineration plant. Do you handle all garbage, trash --

MR DE BORD: We handle all garbage and trash, that is of a combustible nature. We operate sanitary land fills for non-combustibles, that is industrial trade wastes, and incinerator ash.

MR. SMITH: In other words, no garbage or trash into the river?

MR. DE BORD: The only garbage that goes into the river is that that would be used for domestic purposes in the homes or commercial garbage grinders used by some of the food processing plants, which enter the river through the sewer mains in this area here (indicating).

MR. HOPKINS: Mr. DeBord, at the present time what disposition is made of the manure, bedding, and related refuse from the stockyards?

MR. DE BORD: To the best of my knowledge a great deal of that is processed into fertilizer, a certain amount is or formerly was loaded into gondola railroad cars and hauled out of the city and what disposition was made I don't know.

Maybe you know.

MR. ULRICH: Some of it was hauled out of town and they had a burning dump down south of here at one time. Apparently agricultural sources wouldn't take all of it so they did resort to burning, which we didn't take too kind a view of, but a good deal of it goes into fertilizer. Some, of course, reaches sewers, some is flushed.

MR. DE BORD: Flushed out through the pens, paunch manure and such as that would go into the river.

CHAIRMAN STEIN: Mr. DeBord, I don't know whether you want to answer these questions now or the other men, but can you -- your remark on the go-ahead signal of July 15, 1957, I think is significant. Would you say that the sewer service charge you have imposed at the present time is sufficient to meet the financial cost of Projects 4 and 5 if they were obligated for that purpose?

MR. DE BORD: At the present time the three million dollars in revenue bonds is to provide for interim financing, such as the expansion of the Papillion Creek sewage treatment plant, of which one million six hundred thousand dollars is earmarked for that use, plus two hundred fifty thousand dollars of Federal grant that Mr. Filipi promises and we have on application at the present time.

CHAIRMAN STEIN: Maybe I had better make myself clear. You are imposing a sewer service charge now?

MR. DE BORD: Correct.

CHAIRMAN STEIN: Now, that is bringing in a total of about how much a year?

MR. DE BORD: It is estimated to bring in $800,000.

CHAIRMAN STEIN: $800,000 a year.

MR. DE BORD: Of which a certain amount must be reserved to retire the revenue bonds, I believe in the neighborhood of -- It will vary from $250,000 to $300,000 a year?

MR. ULRICH: Approximately that.

MR. DE BORD: Approximately that figure. Plus the administration charge of operating the sewer service fee collection office and the balance is available for use in expansion of our program. But there are not now bond funds provided to cover the entire expansion program, which must be developed by the Mayor and his special committee and the City Council.

CHAIRMAN STEIN: Here, let me put the question to you this way. According to the information in some of the preliminary reports I have seen, the present sewer service charge -- and I am putting this as a question; I don't know -- may support a total bond issue of approximately twelve million dollars. Now, if that is so, what I am getting at, will that be sufficient to support this entirely new program or will you have to come up with additional methods of financing?

MR. DE BORD: Well, let me kind of evade that a little bit in this way.

CHAIRMAN STEIN: Yes.

MR. DE BORD: The total needs for this entire program have not been fully determined because engineering cost analyses have not been made of the total -- the facilities we are talking about here in relationship to the interceptors and plants. The amount of money that sewer service fees can support in bonds would have to be determined by a bond consultant. I am not qualified to speak on that. Maybe some of these other men can give you more information.

MR. DURHAM: I wonder if I may make a few remarks here?

CHAIRMAN STEIN: Yes, go ahead.

MR. DURHAM: I think the thinking all along has not been to finance this entire program with sewer revenue bonds.

CHAIRMAN STEIN: Yes.

MR. DURHAM: It is so we could get a more equitable distribution by a balance of general obligation bonds and sewer revenue bonds, and that has been our endeavor all along.

CHAIRMAN STEIN: Yes. Well, now, Mr. Durham, may I ask, what type of go-ahead signal would be forthcoming on July 15, 1957, that was alluded to? Is that a go-ahead signal to continue or to prepare preliminary plans?

MR. DURHAM: Well, you see, the work that is in progress now on Projects 2 and 3 is a preliminary engineer report and estimate of cost and program to actually get that project under way.

Now, on Projects 4 and 5, it would take roughly, oh, eight months to a year to do that preliminary work. So obviously if we are to complete that work in any given schedule, say in the next calendar year, the authorization to make that engineering study would have to be forthcoming from the Department of Public Works and the City Council sometime within the next month or so in order to make that possible. Do you see what I mean? In other words, that is the preliminary studies and preliminary work.

CHAIRMAN STEIN: Let's see if I can recapitulate this and correct me if I am wrong.

As far as the Papillion Creek plant is concerned, the revenue bonds have been authorized and the financing is in sight.

MR. DURHAM: That is correct.

CHAIRMAN STEIN: As far as the North Omaha interceptor is concerned and what you have referred to as your Project 3, your Minne Lusa area plant, the preliminary plans are well under way to completion; however, they --

MR. DURHAM: Let me correct that. The preliminary engineering studies.

CHAIRMAN STEIN: -- studies are under way to completion, but there has been no commitment for financing those plants from City resources, although considering the $800,000 sewer service charge coming in there is a chance that that might be in sight if the City so wishes?

MR DURHAM: That is correct.

CHAIRMAN STEIN: O.K. Now --

MR. DURHAM: In other words, on Projects 2 and 3 the preliminary engineering studies are in. The detailed financing can't be worked out because we don't know how much it is going to cost yet.

CHAIRMAN STEIN: Now, as I understand it, for even the tentative schedule you have set up to be met, the city would have to authorize preliminary studies on Projects 4 and 5 by July 15 of this year,is that correct?

MR. DURHAM: Well, approximately, yes.

CHAIRMAN STEIN: Approximately. Now, even if that were done, however, there would have to be an adjustment on financing in the sense that the city necessarily would want to re-evaluate the financing and possibly want to go beyond this $800,000 a year fund or go to another fund before they made financial commitments on the 4 and 5 projects, is that correct?

MR. DURHAM: Yes, I think they will want to re-evaluate their financing program at each one of these steps. After they consider Step 2 it will be re-evaluated, Steps 3, 4 and 5. If the preliminary engineering was all done on all these projects it would be possible to work out a blueprint and stick to it, but we are not quite to that stage yet except on this Project 1. We are almost to it on Projects 2 and 3.

CHAIRMAN STEIN: All right, thank you.

Are there any further questions?

Mr. Woodbridge, would you want to continue?

MR WOODBRIDGE: I think that is all we have.

CHAIRMAN STEIN: Thank you very much, Mr. Woodbridge.

MAYOR ROSENBLATT: I might add, Mr. Chairman, that the schedule that has been given you of production, if there is any question that our date lines are not satisfactory in collaboration with other abutting municipalities up and down the Missouri, we can re-calculate and maybe set some of them a little bit sooner. But we would like to keep the same tempo in our production as others will keep in their production up and down the Missouri River.

In other words, let me point out one important thing. If we spend, say, some twenty million dollars and get our jobs done by 1960 in Omaha, Nebraska, we don't want to find ourselves where the Mayor of the City of Omaha and my Council has to start standing a barrage and bombardment of questions from our taxpayers in the City of Omaha, what is happening to the north of us and to the south of us? In other words, Omaha is not the only place on the Missouri. There are many other focal points as well as people using the Missouri just like some people in Omaha do. So we want you to know that we want to work with you and we will go right down the line with all the respective municipalities up and down the river, but we are going to get this job done. As the schedule calls for it, it talks about South Omaha May 1, 1961. We could maybe move this up to May 1, 1960. I haven't discussed this particular question with our engineers or our consulting engineers, but we want it clear that we are willing to adjust and re-adjust. Omaha has declared itself and has dedicated itself, and just pinpointing Omaha alone on this, I feel it should be a pinpointing of everybody up and down the Missouri River. Because as I pointed out a few minutes ago, we have a potential in the next years of serving 200,000 people with our treatment plant instead of that nuisance going into the river, and we have this some 400-ton incinerator that is going to even be built bigger, it is going to be built to a 500-ton unit in the next year or two. So we want you to know that we are cooperating and want to continue to cooperate only in the best of collaboration with all of you people up and down the river.

MR. HOUSER: Mr. Chairman, may I ask one more question?

CHAIRMAN STEIN: Yes

MR HOUSER: To get back on this financing, do the Nebraska statutes require a referendum on a bond issue for a sewage treatment plant?

MAYOR ROSENBLATT: In the City of Omaha under our new charter, sir, any additional monies to be exercised in the form of general obligation bonds or revenue bonds must be approved by the people. Now, for example, this plan as I just talked about briefly under sanitation, we are asking for some 23 million dollars. Now, I just met with our engineering staff and have instructed them to begin to implement the financing that is going to be necessary over and above what we have already set up, which is the sewer fee and the three million dollars. I have every confidence that the people of Omaha, when they submit this in the fall of the year, in all probability, that they will assume this obligation and make possible the financing for the over-all program up until 1960. In other words, we have partially got our job done as far as financing, but the major part of it will be forthcoming at the end of the year and I have every confidence that the people will bend to it.

CHAIRMAN STEIN: Thank you. That really answers the question.

MR. SMITH: That election is proposed for the fall of this year?

MAYOR ROSENBLATT: That is right, sometime this fall.

CHAIRMAN STEIN: Mr. Hodgkinson.

MR. HODGKINSON: Do you have enough financial resources available at this time to pay for all engineering clear through final plans and specifications for all projects?

MAYOR ROSENBLATT: No. I pointed out that we just issued three million dollars in revenue bonds. We just set up a sewer fee financing program that is bringing in -- how much money a year is that?-- $800,000 a year. And those two financial incomes will begin to pay the 63rd and Harrison project and pay for the Minne Lusa North Omaha project. That is the two.

MR. HOPKINS: By engineer, Mr. Mayor, you meant only the plans and not the construction?

MAYOR ROSENBLATT: Mr. Durham, would you answer that question?

MR. DURHAM: I believe that in answer to your question, through the sewer service charge that the engineering studies could be financed at the present time because they are a relatively small part of the over-all cost.

Is that correct, Mr. DeBord?

MR. DE BORD: Yes.

CHAIRMAN STEIN: To summarize, and I think maybe we could have saved some time if you had been here before, but I think we can recapitulate in this way, that for the Omaha job to be done in the way Mayor Rosenblatt envisions it, the issue of financing will have to be put up to the people again in an election probably this fall before the money is in sight and they have made determinations on the financing. And I think that that is the essential fact, perhaps, that we should consider in this.

Now, I would like if we could in the light of the Mayor's comments for the conferees to talk in terms of these proposed dates which were set up, and I think we have to consider several things. Consider the interstate nature of the stream, the activities of your own communities, and of course we must consider the interests of the Federal Government in an even-handed administration and equitable solution of the problem where cities and all states are treated about equally.

Does anyone want to start talking as to that from among the conferees?

If not, I think I will have to call on Mr. Hopkins.

MR. HOPKINS: In view of Mayor Rosenblatt's remarks, I think that it might be well to suggest the basis of understanding among the conferees, that it is his contention as a part of this schedule through submitting another financing issue to the public this fall that he visualizes as an item of the schedule that the remaining finances will be arranged at least by the first of the year.

MAYOR ROSENBLATT: That is right. Now, let me just add to that, Mr. Hopkins.

I think we have fulfilled the requests of date lines that have been outlined in the past year. Omaha has already fulfilled that.

MR. HOPKINS: The only question would be, I think, on Projects 4 and 5, the date lines that are established in the typewritten sheet are somewhat behind the over-all objective that was set for the river of contracts to be awarded by January '59.

MAYOR ROSENBLATT: In other words, 3 and 4?

MR. HOPKINS: Yes.

MAYOR ROSENBLATT: In other words, contracts to be awarded by the 15th?

MR. HOPKINS: Yes.

MAYOR ROSENBLATT: Why, sure. As a matter of fact, we are right on schedule, then, because we have processed 1 and 2, and 3 and 4 will be completed just as soon as our financing is arranged by way of vote of the people. In other words, this is 1957.

MR. HOPKINS: As a second point to a basis of understanding, I believe the

Mayor's remarks will serve for the record that every effort will be made to move the contract award schedules for Projects 4 and 5 ahead at least to 1960 and if possible to 1959.

MAYOR ROSENBLATT: If it is possible. In other words, we have got a program here that calls for a hundred million dollars in the City of Omaha. We are asking our people to approve this program over the next 10, approximately, maybe 15, years and there is probably about thirty million in this Federal and State matching funds. What we are trying to do is prorate the financing as well as building of this profile within the present monies that the people are appropriating as far as the bond redemption program is concerned. We have a five million bond redemption program that we use in the payment of capital programs and instead of trying to increase these taxes we are trying to maintain the same level and that is the reason why I say I don't know just exactly how the over-all plan will shape up. But I have every confidence that we can meet those date lines that you have set out for us, Mr. Hopkins.

MR. HOPKINS: With that understanding, I would like to have the schedule with those two points reconsidered evaluated by the other states.

Mr. Happy, would you care to lead off on that?

MR. HAPPY: Speaking for Missouri, as you know, earlier this week we had a conference at St. Joseph. As a result of that conference it was brought out that the garbage that has in the past been discharged directly into the Missouri River is now discontinued and will not be resumed. Certain bedding, paunch manure and similar matter that has in the past been discharged into the Missouri River has been discontinued and will not be resumed. The City of St. Joseph has agreed on the following dates:

By September 1 of 1957 there will be a decision made with the industries in the St. Joseph area that are actually outside of the city limits as to whether or not they will join with the city in providing sewerage and treatment or whether they will go their individual ways. But in either event, these dates will be binding either collectively or individually. The City of St. Joseph will schedule a bond issue election on November 12, 1957 , for the purpose of financing their works. Their consulting engineer has indicated that their completed detailed plans can be available by June 30, 1958, and that they will then be in a position to award contracts and start construction by January 1, 1959.

The Mayor even went further. He projected the completion of their works by mid-1960.

Now it is our contention in representing the Division of Health of Missouri that the awarding of contracts for construction apply to all of the cities in Missouri as of January 1, 1959. And naturally we believe, as Mayor Rosenblatt brought out, there is this necessity for agreement and coordination with the other states in the Basin and that the other states should not fall behind.

I believe that completes my statement, Mr. Chairman.

CHAIRMAN STEIN: Do any of the the other states wish to make a statement on these dates?

Mr Hodgkinson?

MR. HODGKINSON: As I indicated in my preliminary statement, Leavenworth and Atchison are operating on the basis of a January 1, 1959, deadline for construction. Their interceptor problem will not be nearly as complicated, of course, as Omaha's, but interceptor construction contracts have been let in Kansas City for a project which would be similar to this Project 2 and final plans and specs are on the board for other projects. So that I see no reason why the cities in Kansas should not meet the agreed deadline set by the other states.

CHAIRMAN STEIN: Mr. Houser, do you care to comment on this? I would like to recall one thing before you comment, if I am correct. You said that Sioux City would award their contract by what date?

MR. HOUSER: January 1, 1959. That was a four-year program.

CHAIRMAN STEIN: Yes.

MR. HOUSER: Set up in 1955, and January 1 was the contract award date.

CHAIRMAN STEIN: Yes.

MR. HAPPY: Mr. Chairman.

CHAIRMAN STEIN: Yes.

MR. HAPPY: I would like to bring out further that there apparently is agreement on that date of January 1, '59 for awarding of contracts, but I should like to emphasize my concern, and particularly with regard to St. Joseph, where their financing will be subject to an election on November 12 of this year, that we abide to the greatest possible extent by agreement on that date. In other words, I think you can readily understand that the prospects of the citizens supporting that would be hurt if there was some knowledge of a delay in other locations.

I think we can accomplish that by proper agreement.

MR. HOPKINS: At the base of that agreement, with Mayor Rosenblatt's statement moving this 4 and 5 contract award date to January 1960 and make every effort to have it done in 1959, would that be reasonable consistency with the program in Missouri?

MR. HAPPY: Keeping in mind that two of the three plants would be ahead or identical with the schedules proposed in Missouri. And a one-year lag at the greatest.

MR. SMITH: Would Omaha object to a statement that they would proceed as soon after 1959 as practical on 4 and 5?

MAYOR ROSENBLATT: Is that feasible?

MR.DURHAM: Well, I think in my own opinion it would be possible to telescope this program about a year in Omaha, that is from start to finish. Instead of a four-year program get it down to a three. But when we start talking about January 1, 1959, I mean we are just not talking realistically. Now, I wish we were, but whereas some of this work is under contract in Kansas City, we are merely starting preliminary studies or are in the process of preliminary studies and this is a tough problem along the river. I wish we could promise '59, but I believe a realistic approach would be about one more year--or one less year than we have in this program.

Does that answer your question?

CHAIRMAN STEIN: First let me ask, are there any questions of Mr. Durham on his remarks?

If not, Mr. Happy would like to speak off the record.

(Discussion off the record.)

CHAIRMAN STEIN: Back on the record.

MR. HOPKINS: I would like to suggest that the contract award schedule as handed in by the city's representative be changed as follows: Project 3 be changed from 4-1-59 to 1-1-59; that Project 5 be changed to 1-1-60, with wording along the line of Mr. Happy's statement.

CHAIRMAN STEIN: All right.

This is just a technical question that I am asking you engineers. If we change the contract award dates, I don't think we have to adopt the first two lines necessarily of this proposal dealing with completion of preliminary plans or acquisition of sites and rights of way, but I would suggest that it might be in order to re-adjust the third column, completion of final plans. Would you care to do that, if that is in order, Mr. Hopkins?

MR. HOPKINS: Well, that would have to precede by at least three months the contract award date and that is about the schedule that is followed, for instance, on 1 and 3.

CHAIRMAN STEIN: Can we have specific proposals on each of these items? For example, on No. 3 when would you say the final plan should be completed?

MR. HOPKINS: I would say if we moved it back one month that would be--

CHAIRMAN STEIN: September?

MR. HOPKINS: Yes, make it September.

CHAIRMAN STEIN: All right. Now, the others, 4 and 5?

MR. HOPKINS: Move them back to September '59, again wording to be consistent with the suggestion of Mr. Happy.

MAYOR ROSENBLATT: Mr. Chairman.

CHAIRMAN STEIN: Yes.

MAYOR ROSENBLATT: This suggestion revolves and involves itself around a discussion of actually what we are talking about, which is target dates. Also, too, we have got to give consideration to financing. In other words, the two are going to have to go hand in hand, we hope, because we have got a selling job to do here already over and above what we have already accomplished, and in my opinion we are talking about something that is still an unknown quantity when you talk about the vote of the people. We still have to get these bonds approved by our people. I have confidence that we will, because I think the reason and cause and necessity is just that important. But these are target dates. We are not worried about them if we get our financing, Mr. Hopkins.

MR. HOPKINS: O.K.

MAYOR ROSENBLATT: And they can adjust themselves.

CHAIRMAN STEIN: Mr. Mayor, I think this is the problem faced by every city. It is not unique. I think what we are talking about here is just one segment. Obviously another part of the recommendation that the conferees have to come up with is the financing and obviously what anyone does is contingent on that financing.

In St. Joseph one of the recommendations and conclusions of the conferees was that the question of the financing would be put before the people at this November's election.

MAYOR ROSENBLATT: Well, we are going to try and I hope be able to present our over-all plan to the people sometime in October. Afterall, I am just one part of the vehicle in the management of this municipality and that will be my recommendation, but that remains to be seen whether it is fulfilled. I am anxious to get this show on the road in collaboration with all of you and we are going to try to get it to the people or approved by the people by sometime late this fall.

MR. HOPKINS: The date of January 1, 1958, would be--

MAYOR ROSENBLATT: That is right. Now, when I am talking about that I am talking about 3 4, and 5.

MR. HOPKINS: Yes.

MAYOR ROSENBLATT: 1 and 2 are already in the state of manufacture, so to speak.

CHAIRMAN STEIN: In other words, you are talking in terms of financial arrangements being made by January 1, 1958?

MAYOR ROSENBLATT: We are going to try. That is our target date, Mr. Stein.

CHAIRMAN STEIN: That is correct.

MR. FILIPI: Off the record, please?

CHAIRMAN STEIN: Yes.

(Discussion off the record.)

MR. HOPKINS: Mr. Houser would like to say something.

MR. HOUSER: Mr. Chairman.

CHAIRMAN STEIN: We will go back on the record. Mr. Houser.

MR. HOUSER: I would like to say, and I think pertinent to the subject here, that we appreciate the efforts and commend the City of Omaha and the consulting engineers, particularly on this job of eliminating the Minne Lusa outlet, as we feel that it will be additional protection to the Council Bluffs water supply.

Thank you.

MAYOR ROSENBLATT: Gentlemen, I would like to be excused. It has been a real privilege and pleasure to meet and work with you. I have got another meeting that they are waiting on me right now and I must go. I just want you to know that we meant just exactly what we said, we want to work with you and for you.

Thank you.

CHAIRMAN STEIN: Thank you very much.

MR. FILIPI: Thank you very much. Thanks very much.

CHAIRMAN STEIN: In line with what Mr. Filipi said, I think we probably have a firmed-up proposal, at least, we can make to the conferees here, but do you want to also consider making recommendations of the conferees relating to Bellevue, Plattsmouth, and Nebraska City in terms perhaps of preliminary plans and a contract award date for remedial treatment works and possibly Council Bluffs?

MR. HOPKINS: Mr. Chairman, I think that this conference was called with specific reference to Omaha as the principal source of pollution in this region of the river, as was an earlier conference at Beatrice. I think that the action taken at Beatrice might set precedent here, whereby the conferees agreed that the respective state health departments shall proceed with their plan which recognizes that all sources of pollution should bring about progress within a reasonable time, that the other state health departments be -- it is understood that the other state health departments will proceed with the additional sources of pollution as rapidly and expeditiously as possible, and inform the conferees by appropriate progress reports. That would follow.

CHAIRMAN STEIN: Would that be, Mr. Hopkins, six months?

MR. HOPKINS: Six months.

CHAIRMAN STEIN: When would you suggest the first one?

MR. HOPKINS: So near on to July 1st, that I would say that January 1 would be appropriate.

CHAIRMAN STEIN: All right.

If there are any other comments we may entertain them now or else possibly we can attempt to summarize the conclusions and recommendations of the conferees. Are there any other comments by the conferees?

MR. SMITH: One. I wonder what Omaha's position would be in keeping with -- I know they already do not put garbage and paunch manure and bedding into the river, but there is some, as I understand it, going in.

CHAIRMAN STEIN: Yes.

MR. SMITH: Would they be agreeable to requesting that that be stopped in the immediate future, in keeping with St. Joseph's action?

MR. ULRICH: I refer the matter to Mr. DeBord.

MR. DE BORD: I prefer that the City Council, with some aid from a consulting firm and the engineering section of the City of Omaha, might contact the stockyards company and suggest that they make immediate studies for the removal of excessive paunch manure, and possibly all of it, from the South Omaha stockyards sewer, also some of the outlying plants that also contribute as well as the stockyards company.

MR. HOPKINS: In this case all industries which contribute to the South Omaha sewer are within the corporate limits of Omaha, is that right?

MR. DE BORD: Yes.

MR. SMITH: We would very much like to see that done in keeping with the progress made in St. Joseph.

CHAIRMAN STEIN: I don't know, again I am just trying to sharpen up the proposal. Do you want to make a proposal in line with the St. Joseph proposal? The recommendation of the conferees would be that the discharge of paunch manure, stockyard manure and bedding wastes be discharged within a certain finite period of time and that be very short.

MR. SMITH: Be discontinued.

CHAIRMAN STEIN: Discontinued. Or, as I understood this proposal, it was just a proposal for someone in the city to contact these people for studies to be made. I want to bring you both together so we can entertain a proposal we can get down on paper. Now, what is your suggestion, that the conferees make the recommendation that this be discontinued? Now, what would you consider the time on that? Thirty days, sixty days, immediately?

MR. SMITH: Well, it seems to me like 60 days. I don't know anything about the volume or problem you have got here, but would 60 days be reasonable?

MR. DE BORD: I think that falls right in line with this study that is being projected for the Projects 4 and 5, because they must contact a larger industry down there that contribute industrial wastes to this pollution problem.

CHAIRMAN STEIN: Mr. Filipi, what would you consider a reasonable time on discontinuance, if you think discontinuance is reasonable?

MR. FILIPI: I think this discontinuance can not be set up at this time, but it should be a part of the engineering study of Item No. 4 and I think that we should ask the engineer, if authorized to go ahead with this by the city, how soon they would be in position to contact these industries.

MR HOPKINS: Before that question is answered I would like to interject another thought. Actually is this type of work, determining a new method for disposal of these wastes a proper function of the consulting engineer or the industries themselves? I think it would fall more logically a responsibility of the industry than the consulting engineer. Do you agree with that, Mr. Filipi?

MR. FILIPI: Yes. But the only point is this, that I think the industry will have to first of all make a study of the source of this pollution and then, secondly, to work out a means of disposing of it.

MR. DURHAM: This is a tremendous problem we have here. We have got the biggest stockyards in the world and they have been studying the disposal of paunch manure for years. I mean they are cognizant of the problem. I don't think on a lot of this stuff we can have anything in 60 days or 90 days. We are trying to set up a schedule here to get the job done in the next three to four years and these studies will start and recommendations, probably something will be done when these engineering studies start. I mean when you live here and know the people involved, know the problems and magnitudes of them, thwy, there are just no black and white 60-day solutions to this stuff. It takes time and it takes a lot of work, a lot of missionary work.

MR. HOPKINS: I don't think that Mr. Durham intended to infer that it would take the stockyards and related industries as long as three years to work out a plan for salvage and appropriate disposal of paunch manure . Certainly that could be done in a much lesser time than the city can design its facilities, finance it and award a contract for it. I think that he did want to stress that it couldn't be done overnight, that it would take some considerable study by the industry and probably some facilities for disposal.

I wonder if it would be consistent with the thinking of the conferees that concurrent with this program the city request the industries to proceed as expeditiously as possible to remove those segments of their waste that are not appropriate for treatment within a disposal plant of the type under consideration.

Would that be agreeable to you, Mr. Smith?

MR. SMITH: I think so. It is about 60 days that they accomplished that in St. Joseph, I mean the matter of taking out the bedding. They had to work out a plan, which they advised us that they had. I think somebody mentioned that part of it was going into fertilizer at the present time. And that is what they propose to do in St. Joseph.

CHAIRMAN STEIN: Mr. Smith, may I make a suggestion? I think that these points are well taken. I think the basic point here, and I think it is a very big problem, is to indicate some dates for Omaha. Now, we have several subsidiary points here and I think perhaps the point of the discharge perhaps from Bellevue, Plattsmouth, Nebraska City and Council Bluffs are as important in a measure as the discharge of paunch manure from the stockyards in Omaha. However, I think it may be appropriate to include those in a progress report to the conferees. Now, that does not take sides and say that it can't be done in 60 days or it must be done much longer. Presumably the Nebraska Water Pollution Control authority will make a report on January 1, wherein the progress will be publicized and will be available to you and make a note of reasonable progress.

How does that sound to you as an approach to this problem of paunch manure and stockyard manure and bedding wastes and the like?

Well, if that is so, unless there are any other comments, maybe we can attempt to summarize the thoughts of the conferees.

I think we might say that the conferees unanimously made the following recommendations and came to the following conclusions:

1. That below Omaha, Nebraska, the Missouri River forms a state boundary between Nebraska and Iowa, between Nebraska and Missouri, and between Kansas and Missouri. One of the major sources of pollution of this reach of the river is the City of Omaha, Nebraska, from which untreated sewage and industrial wastes are discharged to the Missouri River. Other sources of pollution are Bellevue, Plattsmouth, Nebraska City, Nebraska, and Council Bluffs, Iowa.

This pollution contributes significantly to (1) deterioration of water quality for public water supplies at St. Joseph, Missouri, with associate enhancement of possible disease transmission, (2) increased concentrations of coliform and other organisms associated with human diseases, which constitute a health hazard to commercial and recreational users, (3) deterioration of water quality so as to interfere with the use for stock watering, (4) deterioration of water quality so as to prevent full use of the commercial fishery, (5) deterioration of water quality to create conditions inimical to a habitat for game fish and wildlife, (6) impairment of water quality for many industrial uses.

As far as the City of Omaha, Nebraska, is concerned the conferees agree that the following would be a reasonable schedule for the construction of remedial works by that city. And this takes into account the excellent progress which has been made by the city in planning and preparatory work and in meeting the problem very effectively.

1. The Papillion Creek plant will be improved as follows: Final plans completed by September 1, 1957, and contracts awarded by January 1, 1958.

2. The North Omaha Interceptor Sewers, Burt-Izzard and above, final plans to be completed by July 1, 1958; contract awards January 1, 1959.

3. The North Omaha Plant, final plans to be completed by September 1, 1958; contract awards to be completed by January 1, 1959.

4. All other pollution control remedial facilities in Omaha to be completed as soon thereafter as possible. However, the final plans for all the other necessary work, including the South Omaha sewers, interceptor sewers below the Douglas Creek Bridge, and the South Omaha plant shall have the final plans completed not later than September 1, 1959, and contracts for such work shall be awarded not later than January 1, 1960.

And further that financing for all these improvements in Omaha shall be completed by January 1, 1958.

That the water pollution control authority of Nebraska shall make periodic reports at six-month intervals to the other conferees concerning the remedial action taken by Bellevue, Plattsmouth, and Nebraska City and Blair to stop discharging substances to the Missouri River which would interfere with legitimate water uses. In addition the water pollution control authority of Nebraska will include in its report progress being made to stop the discharge of paunch manure, stockyard manure and bedding wastes from the Omaha stockyards district into the Missouri River.

The water pollution control authority of Iowa will make periodic reports at six-month intervals to the other conferees concerning the progress being made by Council Bluffs in providing remedial facilities to abate pollution. The first of these reports to be submitted by both Nebraska and Iowa will be January 1, 1958.

Are there any comments or amendments you wish to make to that?

MR. FILIPI: May I suggest that you include Blair in all parts of this?

CHAIRMAN STEIN: In all parts.

MR. HOUSER: I suggest that the town of Carter Lake be included as far as Iowa is concerned.

CHAIRMAN STEIN: The town of Carter Lake will be included as far as Iowa is concerned in all places.

I think also in these reports that we will have we should have reports from Nebraska on the progress of Omaha as well for the information of the conferees. Is that agreeable? I don't know if that was specifically touched on.

MR. HOPKINS: That was included in the statements, yes.

CHAIRMAN STEIN: All right.

Are there any further questions or comments that anyone would wish to make?

MR. DE BORD: As the Mayor indicated, the preliminary planning for Projects 4 and 5 could be started by July 15. If you will refer to our schedule, we have that note.

CHAIRMAN STEIN: Yes.

MR. DE BORD: And he did say that when he was here.

CHAIRMAN STEIN: Will be started?

MR. DE BORD: Yes.

CHAIRMAN STEIN: Well, that is fine. I think that financing thing was cleared up too.

MR. DURHAM: I think that that is important, that the preliminary work could be started by that date because if this schedule on 4 and 5 is to be met on the other end of it it is going to have to be.

CHAIRMAN STEIN: May we suggest amending the conclusions to include that as a statement that the city officials of Omaha authorize the institution of preliminary planning on the South Omaha interceptor sewer project and the South Omaha plant by July 15, 1957?

MR. DE BORD: Yes.

CHAIRMAN STEIN: That will be in the summary.

Are there any other points?

MR. HOPKINS: I would like to include in that detailed plans and specifications as soon thereafter as practical.

MR. DURHAM: All right.

MR. HODGKINSON: Would it be an alternate to including this September 1, '58, date and January 1, '60 date for the south side interceptor plant to put in this statement about the report and financing?

CHAIRMAN STEIN: We covered financing all in one package, in one recommendation, that the financing for all these projects be completed by January 1, 1958. That is a realistic date. The only one the record wouldn't show that would fit would be the Papillion Creek, but financing has already been arranged for that.

MR. HOPKINS: I think that Mr. Hodgkinson's point is that the schedule might stop earlier. These conferences must result in a detailed schedule agreed to by the conferees or the Surgeon General must establish one, and I think we had better do it here than to have him do it.

MR. HODGKINSON: We still have these dates.

CHAIRMAN STEIN: You will have your dates to contend with. We could go off the record again but I prefer not to at this point unless you wish. Do you want to?

MR. HODGKINSON: I am not going to argue about it.

CHAIRMAN STEIN: All right.

Are there any further questions?

If not, we will call this conference adjourned. I want to thank everyone for coming and thank the city for making the use of this hall available. And thank Miss Hough for her usual excellent work in taking the stenographic report.

Thank you gentlemen.

- - -

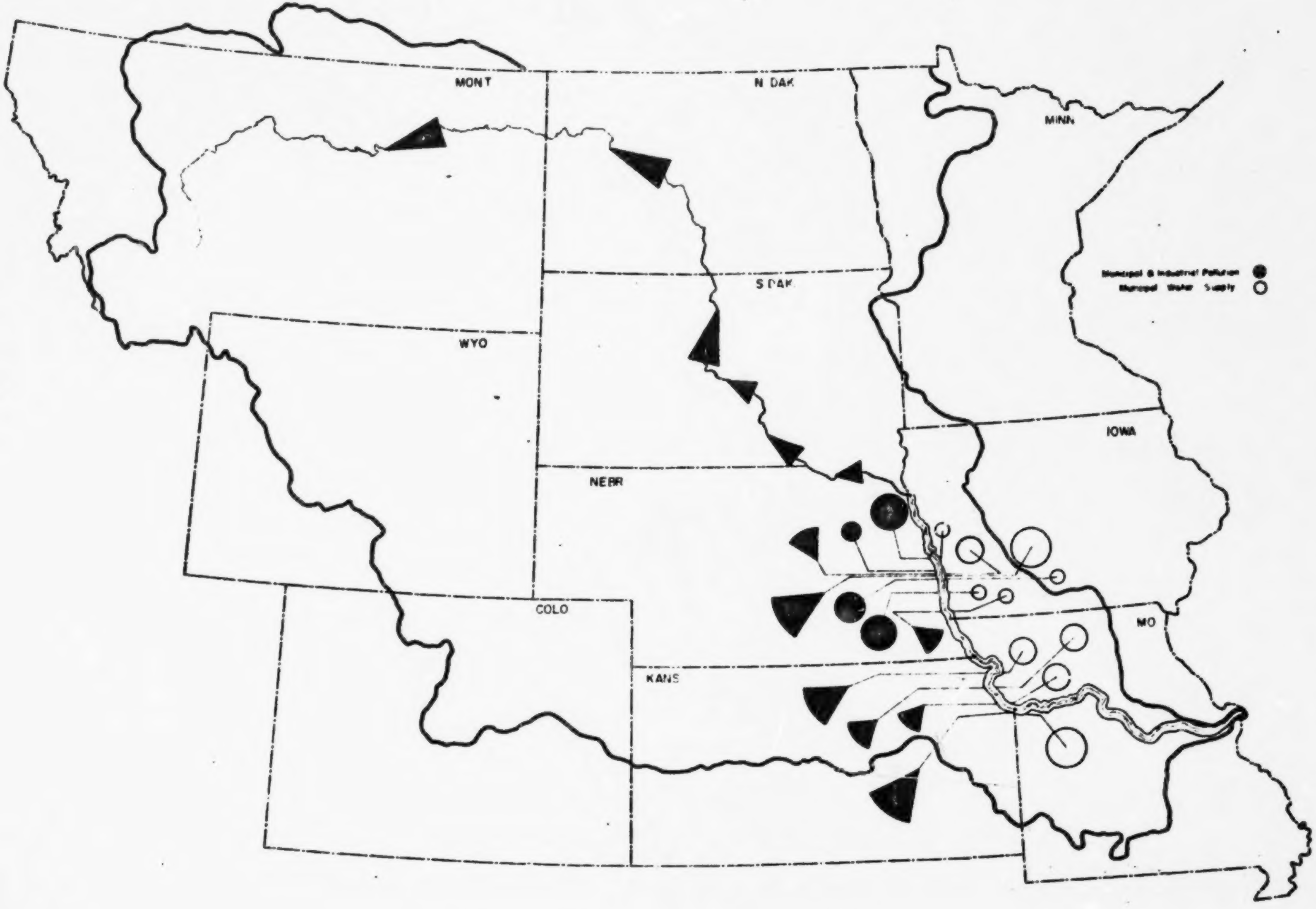
Whereupon, the conference stood adjourned at twelve thirty o'clock p.m.

- - -

CHART I

POLLUTION CONTROL

ONE PHASE OF MISSOURI BASIN DEVELOPMENT PROGRAM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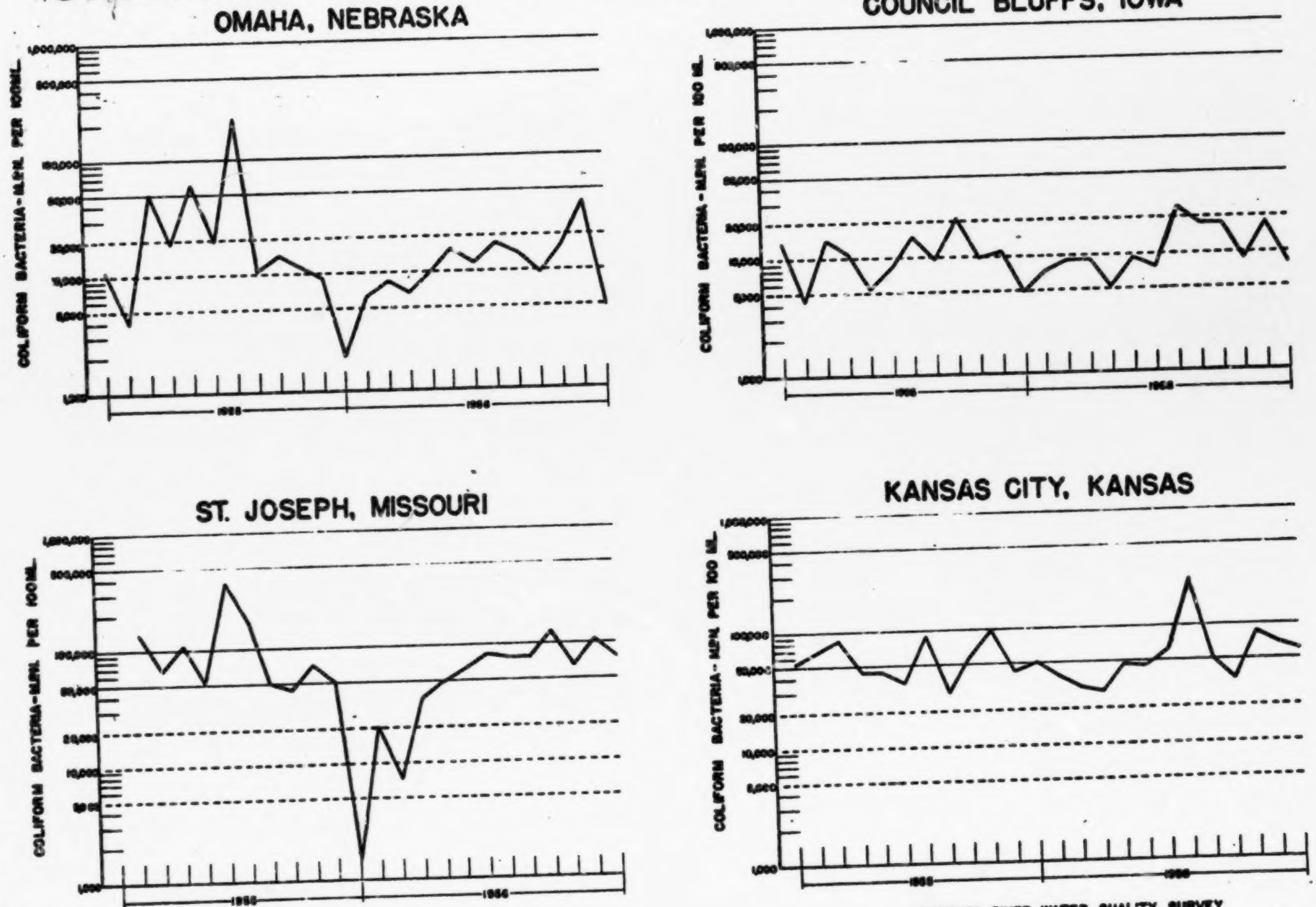
Municipal & Industrial Pollution ●
Municipal Water Supply ○

BACTERIOLOGICAL POLLUTION CRITICAL DURING SUMMER MONTHS


OMAHA, NEBRASKA

COUNCIL BLUFFS, IOWA

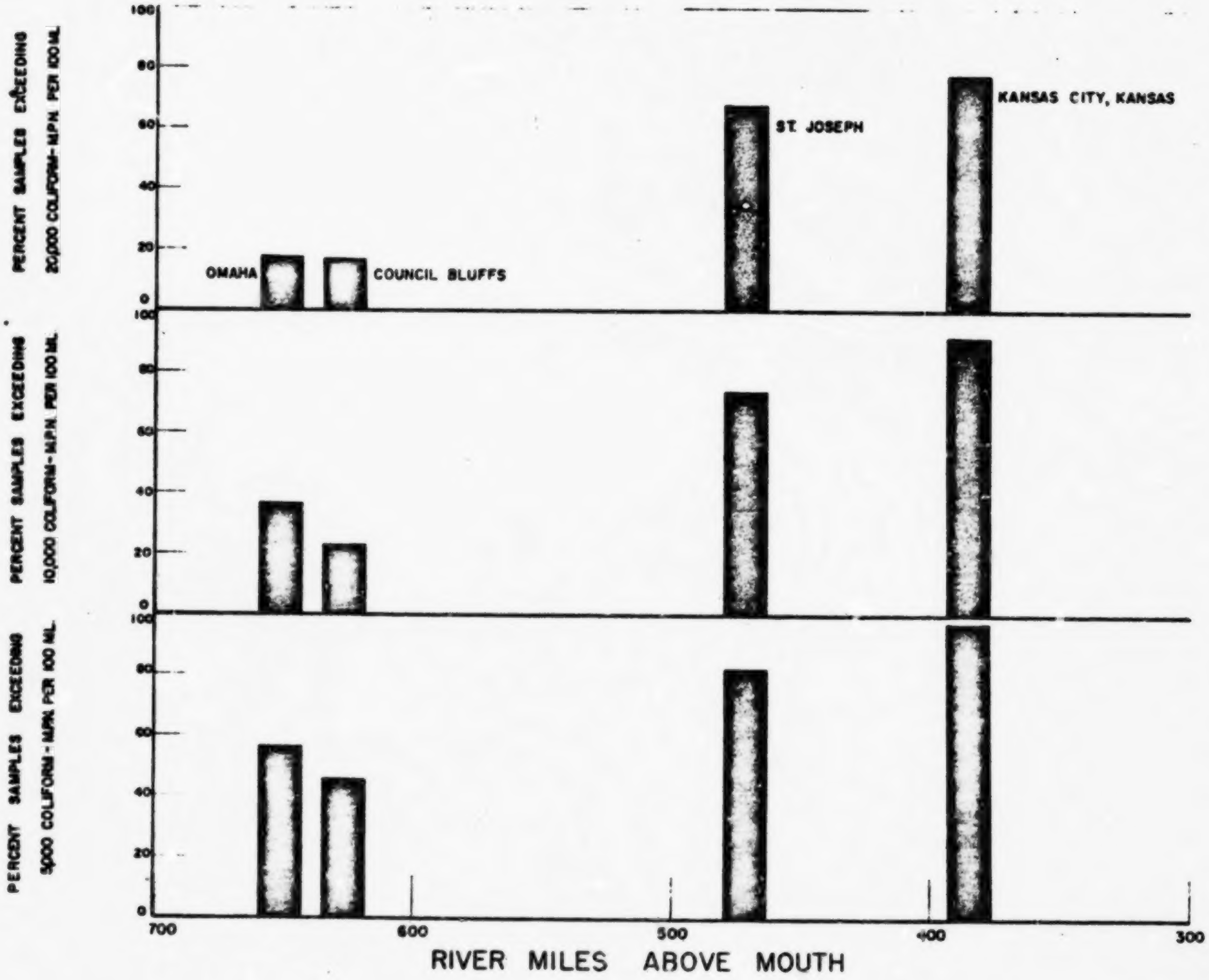
ST. JOSEPH, MISSOURI

KANSAS CITY, KANSAS

MISSOURI RIVER WATER QUALITY SURVEY
BACTERIOLOGICAL INVESTIGATIONS
AT CITY WATER INTAKES
AVERAGE MONTHLY COLIFORM DENSITIES

CHART III

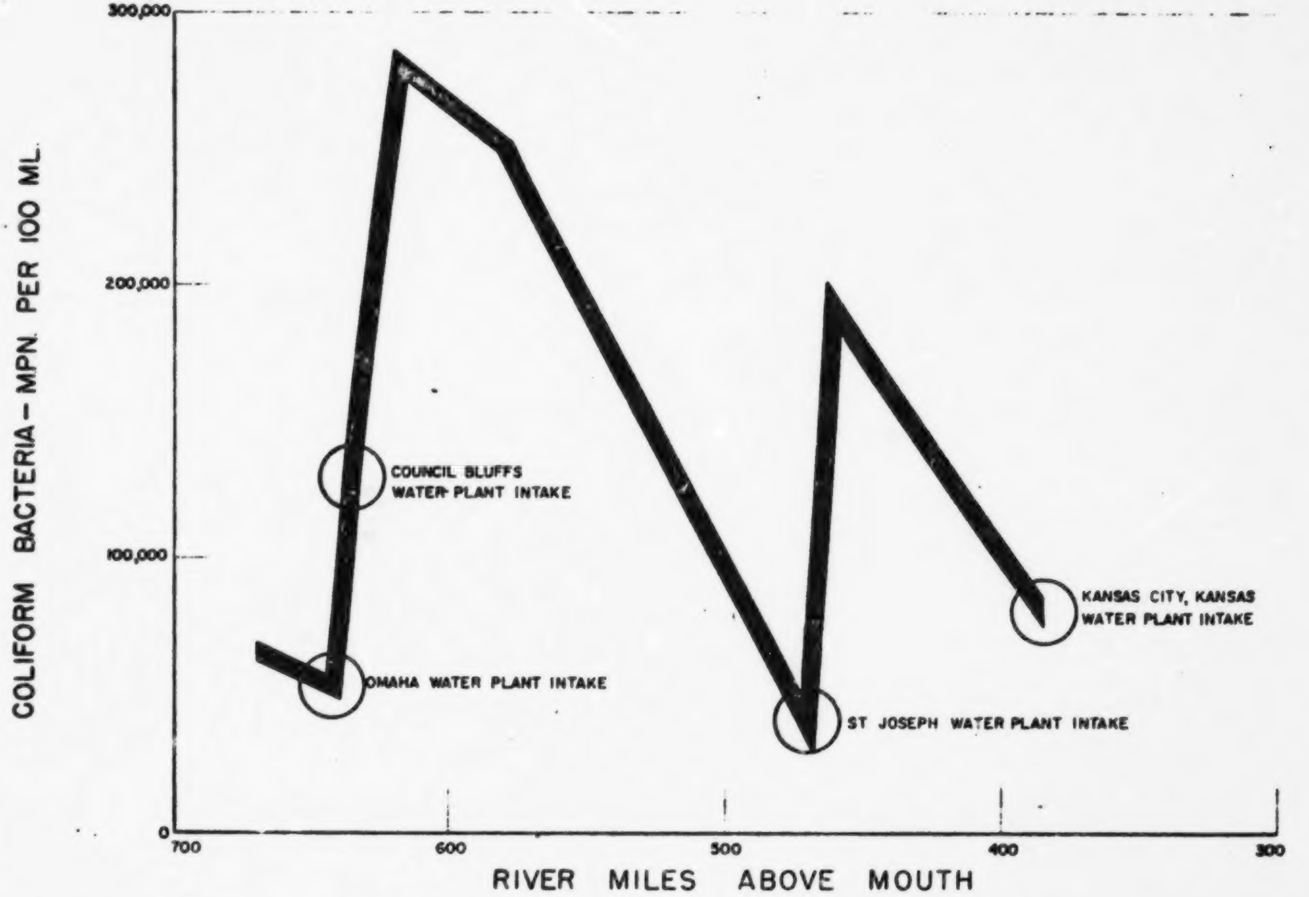
A HIGH PERCENT OF SAMPLES CONTAIN COLIFORMS EXCEEDING ACCEPTABLE LEVELS



MISSOURI RIVER WATER QUALITY SURVEY
BACTERIOLOGICAL INVESTIGATIONS
1955 – 1956

CHART IV

POLLUTION LEAST INTENSE AT WATER PLANTS



MISSOURI RIVERWATER QUALITY
BACTERIOLOGICAL INVESTIGATIONS

AVERAGE COLIFORM DENSITIES
JUNE–SEPT, 1950

The report consists of
the proceedings of a

Summary of Conference

POLLUTION OF INTERSTATE WATERS
of the
MISSOURI RIVER--OMAHA, NEBRASKA AREA--(NEBRASKA-IOWA-MISSOURI-KANSAS)

The Missouri River beginning north of Omaha, Nebraska, and flowing south from that point to St. Joseph, Missouri forms a boundary between Nebraska and Iowa, Nebraska and Missouri, and Kansas and Missouri. The principal municipalities in this stretch of the river are Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa.

On the basis of reports, surveys and studies the Surgeon General having reason to believe that pollution of the Missouri River caused by discharges of untreated sewage and industrial wastes by Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, is endangering the health and welfare of persons in States other than that in which the discharge originates, called a conference on the matter of pollution of the interstate waters of the Missouri River--Omaha, Nebraska area (Nebraska, Iowa, Missouri and Kansas). The conference was held on June 14 1957 in the Council Chambers, City Hall, Omaha, Nebraska.

The following conferees representing the State water pollution control agencies of Nebraska Iowa, Missouri and Kansas and the Public Health Service attended the conference:

Leonard B. Dworsky	U.S. Public Health Service Kansas City Missouri
T.A. Filipi	Nebraska Department of Health
Albert W. Happy Jr.	Missouri Division of Health
James R. Harlan	State Conservation Commission Des Moines Iowa
Carl Hodgkinson	Kansas State Board of Health

Glen J. Hopkins	U.S Public Health Service Kansas City, Missouri
Paul J. Houser	Iowa State Department of Health
R. J. Schliekelman	Iowa State Department of Health
Jack Smith	Missouri Division of Health
Murray Stein, Chairman	U.S. Public Health Service Washington, D.C.

Also participating in the conference were the following representatives of the City of Omaha who were invited by the Nebraska Department of Health:

D.P. DeBord	Acting City Engineer
Charles Durham	Consulting Engineer
John Rosenblatt	Mayor, Omaha, Nebraska
Herbert Ulrich	Sanitation Engineer
E.W. Woodbridge	City Engineer

The Chairman of the Conference pointed out that:

1. Under the Federal Water Pollution Control Act (P.L. 660, 84th Congress) pollution of interstate waters which endangers the health or welfare of persons in a State other than the one in which the discharge originate is subject to abatement under the procedure described in Section 8 of the Federal Act.

2. The first step of this procedure is the calling of a conference.

3. The purpose of the conference is to bring the States and the Public Health Service together to lay a basis for future action by all parties concerned and to give the States and localities an opportunity to take any remedial action which may be indicated under State and local law.

Mr. Glen J. Hopkins, Regional Engineer, Public Health Service, Region VI, read a general statement on the pollution of the interstate waters of the Missouri River - Omaha, Nebraska area.

Mr. T. A. Filipi, Director, Division of Sanitation, Nebraska Department of Health presented a statement concerning the sources of pollution in Nebraska and the nature of the wastes.

Mr. Paul J. Houser, Director, Division of Public Health Engineering, Iowa State Department of Health, presented a statement concerning the sources of pollution in Iowa and the nature of the wastes and the effects of pollution on present and potential water uses in Iowa.

Mr. James R. Harlan, Assistant Director, State Conservation Commission, Des Moines, Iowa, presented a statement on the effect of pollution on present and potential recreational uses of the Missouri River in Iowa.

Mr. Albert W. Happy, Jr., Director, Bureau of Public Health Engineering, Missouri Division of Health, and Mr. Jack Smith, Engineer in Charge, Water Pollution Control Program, Missouri Division of Health, presented a statement concerning the effects of pollution on actual and potential water uses in Missouri.

Mr. Carl Hodgkinson, Water Pollution Control Program, Kansas State Board of Health, presented a statement on the effects of pollution on present and potential water uses in Kansas.

Mayor John Rosenblatt, Mr. Herbert Ulrich, Mr. E. W. Woodbridge, Mr. D. P. DeBord, and Mr. Charles Durham reported on action proposed to be taken by the City of Omaha, Nebraska, to install adequate waste treatment facilities.

In the light of the conference discussions, the conferees unanimously made the following conclusions and recommendations:

1. That pollution of interstate waters subject to abatement under the Federal Water Pollution Control Act is occurring in the Missouri River - Omaha, Nebraska, area. Sewage and industrial wastes from Blair, Bellevue,

Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, are finding their way into the waters of the Missouri River, an interstate water as defined by the Federal Act. Such discharges cause pollution of the Missouri River so as to endanger the health and welfare of persons in Nebraska, Iowa, Kansas, and Missouri, States other than that in which the discharges originate.

2. That the major source of such pollution is Omaha, Nebraska.

3. That the effects of this pollution are (1) deterioration of water quality for public water supply of St. Joseph, Missouri with associated enhancement of possible disease transmission; (2) increased concentrations of coliform and other organisms associated with human disease which constitute a health hazard to commercial and recreational users of the river; (3) deterioration of water quality so as to interfere with its use for stock watering; (4) deterioration of water quality so as to prevent full use of the commercial fishery of the Missouri River below Blair, Nebraska; (5) deterioration of water quality so as to create conditions inimical to fish and wildlife in the area; and (6) impairment of water quality for many industrial uses.

4. That the measures presently used for disposal of sewage and industrial wastes from Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, are not adequate to secure abatement of pollution of the interstate waters of the Missouri River.

5. That the delays encountered in the abatement of such pollution are due to the lack of installation of adequate waste treatment facilities or other methods for reduction of pollution by the municipalities and industries concerned.

6. That Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, should provide adequate treatment for wastes prior to their discharge.

7. That detailed final plans and specifications for the improvement and expansion of Papillion Creek waste treatment plant in Omaha be completed by September 1, 1957 and contract awards for construction of this facility be made by January 1, 1958; that detailed final plans and specifications for North Omaha interceptor sewers (Burt-Izzard District and above) be completed by July 1, 1958 and contract be awarded for the construction of this facility by January 1, 1959; that detailed final plans and specifications for North Omaha sewage treatment plant be completed by September 1, 1958 and contract be awarded for this facility by January 1, 1959; that detailed final plans and specifications for South Omaha interceptor sewers (below Douglas Street Bridge) be completed by September 1, 1959 and contract be awarded for this facility not later than January 1, 1960; that detailed final plans and specifications for a South Omaha sewage treatment plant be completed by September 1, 1959 and that a contract be awarded for this facility not later than January 1, 1960.

8. That the City of Omaha authorize the engineering study for South Omaha interceptor sewers and a South Omaha treatment plant by July 15, 1957.

9. That the City of Omaha, Nebraska, submit the financing of its proposed waste treatment facilities to its voters in November 1957.

10. That the Nebraska Department of Health and the Iowa State Department of Health report to the other conferees periodically as to progress. Such reports are to be made at not less than 6 month intervals. Included in the Nebraska report are to be statements on the meeting of the above schedule by the City of Omaha, the progress made to eliminate the discharge of untreated paunch manure, stock manure and bedding wastes from the stockyard district of Omaha, into the Missouri River, and the progress made by Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska in installing adequate waste treatment facilities.

11. The Iowa reports will detail progress being made by Council Bluffs and Carter Lake, Iowa in installing adequate waste treatment facilities.

# # # #

CONFERENCE

in the matter of

Pollution of the Interstate Waters of the

MISSOURI RIVER, OMAHA, NEBRASKA AREA

(Nebraska-Iowa-Missouri-Kansas)

PROCEEDINGS

Second Session

July 21, 1964
Sheraton-Fontenelle Hotel
Omaha, Nebraska

U.S. Department of Health, Education, and Welfare
Washington, D. C.

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Second Conference in the Matter of Pollution of the Interstate Waters of the Missouri River, Omaha, Nebraska area (Nebraska-Iowa-Missouri-Kansas), convened at 9:30 a.m., on Tuesday, July 21, 1964, at the Sheraton Fontenelle Hotel, Omaha, Nebraska.

PRESIDING:

Murray Stein, Chief, Enforcement Branch, Water Supply and Pollution Control, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D. C.

CONFEREES:

J. Lee Mayes, Kansas State Department of Health

R. J. Schliekelman, Iowa State Department of Health

E. A. Rogers, M. D., Nebraska Department of Health

C. N. Sutton, Nebraska Water Pollution Control Council

J. D. Samson, Nebraska Water Pollution Control Council

Freeman Johnson, Missouri State Water Pollution Board

J. K. Smith, Missouri State Water Pollution Board

Herbert C. Clare, U. S. Department of Health, Education, and Welfare, Kansas City, Missouri

PARTICIPANTS:

Paul Bolton, Henningson, Durham & Richardson, Omaha, Nebraska

Leslie Carr, Nebraska City Boat Chairman, Nebraska City, Nebraska

James B. Coulter, U. S. Department of Health, Education, and Welfare, Washington, D. C.

R. F. Ferguson, Henningson, Durham & Richardson, Omaha, Nebraska

T. A. Filipi, Nebraska Department of Health, Lincoln, Nebraska

Glen R. Foster, Nebraska Game, Forestation, & Parks Commission, Lincoln, Nebraska

Charles A. Geisler, City of Omaha, Omaha, Nebraska

Yale C. Holland, Attorney, Omaha, Nebraska

Arthur J. Meers, Mayor, City of St. Joseph, St. Joseph, Missouri

E. Bruce Meier, Kirkham, Michael & Associates, Omaha, Nebraska

Harrell F. Mosbaugh, U. S. Department of the Interior, Billings, Montana

Charles W. O'Rourke, Union Stockyards Company, Omaha, Nebraska

Lester R. Petri, U. S. Geological Survey, Lincoln, Nebraska

George B. Sumner, Director of Public Works, City of Omaha, Nebraska

Donald A. Townley, U. S. Department of Health, Education, and Welfare, Kansas City, Missouri

Harry Trustin, President, City Council, Omaha, Nebraska

T. Waara, U. S. Army Corps of Engineers, Omaha, Nebraska

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PROCEEDINGS

OPENING STATEMENT

BY

MR. MURRAY STEIN

MR. STEIN: The conference is open.

This second session of the conference in the matter of pollution of the interstate waters of the Missouri River and its tributaries, involving the States of Iowa, Missouri, Kansas, and Nebraska, and the Department of Health, Education, and Welfare, is being held under the provisions of section 8 of the Federal Water Pollution Control Act. The Secretary of Health, Education, and Welfare is required to call a conference of this type when, on the basis of reports, surveys, or studies, he has reason to believe that pollution of interstate waters subject to abatement is occurring.

The purpose of the conference is to bring together the State water pollution control agencies, the representatives of the Department of Health, Education, and Welfare, and other interested parties to review the existing situation, to appraise what has been done, to lay a basis for future action by all parties concerned, and to give the States, localities, and industries an opportunity to take any remedial action which may be indicated under State and local law.

The conference technique is rather an old one. It is used by many State agencies informally in the normal conduct of their business in the field of water pollution control. The concept of the conference was proposed by the United States Supreme Court as long ago as 1921 in the famous case of New York against New Jersey involving interstate pollution.

I would like to quote from this Court opinion:

> "We cannot withhold the suggestion, inspired by the consideration of this case, that the grave problem of sewage disposal presented by the large and growing populations living on the shores of New York Bay is one more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the States so vitally interested in it than by proceedings in any court however constituted."

We strongly support the conference technique and we measure our success by the situations which are solved at the conference stage, rather than by the court actions

6

we bring.

As specified in section 8 of the Federal Water Pollution Control Act, the Secretary of Health, Education, and Welfare has notified the official State water pollution control agencies of this conference. These agencies are the Iowa State Department of Health, the Kansas State Department of Health, the Missouri State Water Pollution Board, and the Nebraska Department of Health.

Iowa will be represented by Mr. R. J. Schliekelman; Kansas will be represented by Mr. Lee Mayes; Missouri will be represented by Messrs. Freeman Johnson and Jack Smith; and Nebraska will be represented by Messrs. E. A. Rogers, C. N. Sutton and John Samson.

Mr. Herbert Clare, Department of Health, Education, and Welfare, with headquarters in Kansas City, Missouri, has been designated as conferee for the Federal Government.

My name is Murray Stein. I am from Washington, D. C., headquarters of the Department of Health, Education, and Welfare, and the representative of Secretary Anthony Celebrezze, Secretary of Health, Education, and Welfare.

The representatives of the official agencies are privileged to bring whomever they wish to the conference and have them participate in the conference. However, this is a conference between the State representatives and the representatives of the Department of Health, Education, and Welfare, and these parties constitute the conferees.

Both the States and the Federal Government have responsibilities in dealing with interstate water pollution control problems. The Federal Water Pollution Control Act declares that the States have primary rights and responsibilities for taking action to abate and control interstate pollution. It has always been the policy of the Department of Health, Education, and Welfare to give full recognition to this traditional role of the States. The function of the Department is to encourage the States in these activities. However, the Department of Health, Education, and Welfare is charged by law with specific responsibilities in connection with interstate pollution control problems.

The Federal Water Pollution Control Act provides that pollution of interstate waters, whether the matter causing or contributing to such pollution is discharged directly into such waters or reaches such waters after discharge into a tributary of such waters, which endangers the health or welfare of persons in a State other than that in which the discharges originate, is subject to abatement.

A first session of this conference, held in June 1957, considered such interstate pollution as it was then occurring in the Omaha, Nebraska, area.

The conferees determined that pollution subject to abatement under the Federal Act was occurring. The conferees also determined that Omaha, among many other communities and sources, was a major contributing source to such pollution.

The conferees established a time schedule for remedial action.

Significant progress has been made in the abatement of pollution: Bellevue, Blair, Decatur, Millard, Nebraska City, Niobrara, and South Sioux City, Nebraska, and Council Bluffs, Iowa, now all have plants in operation or under construction; Omaha, Nebraska, has completed interceptor sewers and two treatment plants, one of which is in operation. However, we understand the Omaha treatment plant may be confronted with a larger discharge burden than was ever anticipated when the plant was constructed. This results from a reported proposal that all wastes from the packing industry receive treatment in the municipal plant. If the packing house load were to be discharged into the municipal sewers, it is our understanding that the present municipal facilities, including the newly constructed ones, would not provide adequate waste treatment. Therefore, the attention of the conferees should be directed toward the problem of the disposal and treatment of such wastes, as well as any other problems the conferees may wish to consider.

This second session will, we hope, provide an agreement on the best methods of solving any remaining pollution problems.

I think this whole problem must be put into perspective. When the series of conferences first started and when Nebraska and the other States started an active campaign to clean up pollution, and I think most in the room here probably can remember it, there were very, very few cities up and down the Missouri River providing any treatment at all. As a matter of fact, one of the notable exceptions was Blair, Nebraska. Cities such as Yankton, Vermillion and Sioux City were dumping untreated wastes into the river. The cities down below were using it for a variety of purposes, including drinking water, until we came down to the major area of Omaha and Council Bluffs, where that was happening, and then there were discharges again, with St. Joseph, Atchison, Leavenworth and Kansas City doing the same thing. Then this went on to Independence and all those other towns, right down to St. Louis, including Boonville, Glasgow, and so forth.

Since 1957, the situation has changed radically. Tremendous progress has been made up and down the river. Not only the towns I have mentioned here, but all the other communities from Sioux City down to St. Louis are either in the process of constructing treatment works, have constructed them, or have them in operation. And I think, among these, Omaha has done a rather tremendous job, and we should give full credit to the people here for what they have done. I think the record on this will speak for itself, but I would like to call this record to your attention.

In the Federal procedure there are three stages. First, there is a conference; if abatement is not secured after a conference, then we have a public hearing; and if it is still not achieved, then we have court action. In one city, St. Joseph, we had to go to court. In other major cases on the Missouri, we had to go to a hearing, which was the stage after a conference, at Sioux City, at Kansas City and at St. Joseph.

Only at Omaha and St. Louis, all the parties feel that the situation was solved at the conference stage, and I think this speaks very, very well for Omaha as being one of the cities that has done this.

I don't think there is any element of controversy or even an aspect of an adversary proceeding here, because all the parties recognize what has to be done.

I think Omaha is indeed to be commended, because I remember the first time this came up in a bond issue --

and again looking around the room a lot of people here may remember this -- where we had the Greater Omaha plant at that time. That was proposed and all the bond issues -- I believe there were something like seventeen -- went down to resounding defeat. Some of them were defeated by about seventeen to one, and the sewage treatment facility was only defeated by the margin of two to one.

After we picked up the pieces, somehow we rationalized and considered that was a victory, but I think in spite of that defeat Omaha rearranged its finances and went ahead with its construction job, and is practically on schedule.

There are very, very few communities in the country that do this or can do this, and I think this is all to the credit of Omaha.

Again, as I understand it and as it seems to me, if we look at this issue here in perspective we have to realize we are picking up possibly the rag tail end of a situation to be sure that Omaha has adequate waste treatment, and I know the people in the State, the cities and the industries all want this. This is just a question here of how this will be done.

The new South Omaha plant and intercepter was not designed, as I understand it, to treat the solid wastes, such as paunch manure, in the packing houses.

If it is run into the sewers, the plant will not be able to treat it.

I have heard and I have read the reports and the newspaper articles from here assiduously, and I think everyone recognizes that something has to be done about these wastes. The question is what to do about it.

Despite political predilections, I think the phrase the President uses is one we might use here. As he often says, let us reason together.

I don't have any preconceived notion of what should be done, and I have been here and have been inquiring about this. I don't know that anyone does, but I think if we are going to come up with a solution to the problem, we must reason together.

This is a relatively narrow problem, but an important one, and if this is not taken care of we won't have pollution abated here. It is a vital problem, but a relatively narrow issue, and unless we approach this very, very carefully and slowly and look at all the aspects of the problem, we are going to have a difficult time.

Again I think that at least from the standpoint of the Federal Government we are not unmindful of the problems facing the city government in trying to create a favorable climate for industry.

I might say this has been one of the great things that has happened in the Missouri Valley which we have witnessed in the past ten years. I know it just wasn't a sewage treatment works, but when we first came here, and I think you were all familiar with the economic pattern, somehow the cities, the river towns, had remained static more or less since the 20's. This doesn't just relate to any particular one, but they generally remained static. One of the things we thought was that probably pollution control had something to do with it. As a matter of fact, Sioux City won the All America City Award for being one of the best municipalities enlisted in sewage treatment.

We know from experience that no new industry likes to locate in a place having a sewage treatment problem. They don't like to buy into a lawsuit.

But since that time, the cities in this area have begun to grow. I am just saying that waste treatment is one of the factors. The cities have begun to grow.

As a regular, but maybe a casual visitor, possibly I can see this more clearly than many of you who live here. Just the approaches to the city which used to be littered with debris and dumps now are all cleared up. You have reasonable highway approaches, and you are riding in through a neat clean landscape. I think you can see the progress and just feel it in the air.

Again, I think this is the kind of perspective that we have to recognize that we have to bring in dealing with this problem. We hope that we will be able to achieve that kind of agreement here.

All the conferees will be called upon to make statements. The conferees, in addition, may call upon participants whom they invited to the conference to make statements. At the conclusion of such statements, the conferees will be given an opportunity to comment or ask questions. This procedure has proven effective in the past in developing a clear statement of the problem and in reaching agreements on equitable solutions.

At the end of all the statements, we will have a discussion among the conferees and try to arrive at an agreement on the facts of the situation. Then we will attempt to summarize the conference orally, giving the conferees, of course, the right to amend or modify the summary.

Under the Federal law, the Secretary of Health, Education, and Welfare is required, at the conclusion of the conference, to prepare a summary of it which will be sent to all the conferees. The summary, according to law, must include the following:

1. Occurrence of pollution of interstate waters subject to abatement under the Federal Act;

2. Adequacy of measures taken toward abatement of pollution; and

3. Nature of delays, if any, being encountered in abating the pollution.

The Secretary is also required to make recommendations for remedial action if such recommendations are indicated.

Now a word about the procedure governing the conduct of the conference. A record and verbatim transcript will be made of the conference by Mr. Zimmer. Mr. Zimmer is making this transcript for the purpose of aiding us in preparing a summary, and of providing a complete record of what is said here. We will make copies of the summary and transcript available to the official water pollution control agencies of Iowa, Missouri, Kansas, and Nebraska. We have found that, generally, it is best that people should request transcripts or summaries through their State agencies, rather than come directly to the Federal Government.

The reason for this is that we would prefer the people who are interested in the problem to follow their normal relations in dealing with State agencies rather than the Federal Government on these matters once the conference has been concluded. This has worked successfully in the past and we will be most happy to make this material available to the States for distribution.

I would suggest that all speakers and participants other than the conferees making statements come to the lectern and identify themselves for purposes of the record.

At this point we would like to call on Mr. Herbert Clare for the Department of Health, Education, and Welfare.

Mr. Clare.

STATEMENT OF HERBERT C. CLARE, CONFEREE,
REGIONAL PROGRAM DIRECTOR, DIVISION OF
WATER SUPPLY AND POLLUTION CONTROL, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
KANSAS CITY, MISSOURI

MR. CLARE: Thank you, Mr. Chairman.

As Mr. Stein indicated, we have invited participants from Federal agencies. The other participants were invited, of course, by the States.

There are many Federal agencies interested in the development of the Missouri River. This development has been extensive. It includes, of course, the reservoir system above here, flood control, navigation, power, and so forth.

One of the more recent developments along the Missouri River is recreation. This is becoming greater all the time.

There are several Federal agencies represented today who have indicated that they will make statements. I would like to introduce, before we start the discussion by the participants, a few Public Health Service officers who are present, but who will not participate directly in the conference proceedings, and then, as I call on the representatives of the other Federal agencies, I should like to have them introduce representatives of their different bureaus or sections in their departments.

Very briefly, I should like to introduce Mr. Fred K. Erickson, Chief Engineer of the Public Health Service in Kansas City.

Mr. Earl Anderson, Engineer in charge of the Water Supply and Pollution Control Program in Region II, Public Health Service.

Mr. Evan D. Dildine, Chief of the Construction Grants Section at Kansas City, Region VI.

Mr. Larry Schmid of the Enforcement Section at Kansas City.

Mr. Thomas Gallagher of our Sanitary Engineering Center at Cincinnati.

The first Federal participant that I should like to call on is one of our own men, Mr. Donald A. Townley, Chief of our Enforcement Section. We have asked Mr. Townley to present a brief statement of the situation as it exists in Omaha at this time as interpreted by the Public Health Service.

Mr. Townley.

Donald A. Townley

STATEMENT OF DONALD A. TOWNLEY, CHIEF, ENFORCEMENT SECTION, DIVISION OF WATER SUPPLY AND POLLUTION CONTROL, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, KANSAS CITY, MISSOURI

MR. TOWNLEY: Mr. Chairman, Conferees, Ladies and Gentlemen:

My name is Donald Townley.

On the basis of reports, surveys, and studies, the Surgeon General of the Public Health Service having reason to believe that interstate pollution of the Missouri River caused by discharges of untreated domestic and industrial wastes was endangering health and welfare of persons in States other than that in which the pollution was occurring, called a Conference on June 14, 1957, in the matter of pollution of the interstate waters of the Missouri River, Omaha, Nebraska area (Nebraska-Iowa-Missouri-Kansas). That Conference was concerned with that area of the Missouri River beginning north of Omaha, Nebraska, to a point immediately above St. Joseph, Missouri, a distance of about 165 miles.

On the basis of information presented at the Conference, the conferees unanimously adopted conclusions and recommendations as follows:

1. That pollution of interstate waters subject to abatement under the Federal Water Pollution Control Act is occurring in the Missouri River - Omaha, Nebraska, area. Sewage and industrial wastes from Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, are finding their way into the waters of the Missouri River, an interstate water as defined by the Federal Act. Such discharges cause pollution of the Missouri River so as to endanger the health and welfare of persons in Nebraska, Iowa, Kansas, and Missouri, States other than that in which the discharges originate.

2. That the major source of such pollution is Omaha, Nebraska.

3. That the effects of this pollution are (1) deterioration of water quality for public water supply of St. Joseph, Missouri with associated enhancement of possible disease transmission; (2) increased concentrations of coliform and other organisms associated with human diseases which constitute a health hazard to commercial and recreational users of the river; (3) deterioration of water quality so as to interfere with its use for stock watering; (4) deterioration of water quality so as to prevent full use of commercial fishery of the Missouri River below Blair, Nebraska; (5) deterioration of water quality so as to create conditions inimical to fish and

wildlife in the area; and (6) impairment of water quality for many industrial uses.

4. That the measures presently used for disposal of sewage and industrial wastes from Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, are not adequate to secure abatement of pollution of the interstate waters of the Missouri River.

5. That the delays encountered in the abatement of such pollution are due to the lack of installation of adequate waste treatment facilities or other methods for reduction of pollution by the municipalities and industries concerned.

6. That Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, and Carter Lake and Council Bluffs, Iowa, should provide adequate treatment for wastes prior to their discharge.

7. That detailed final plans and specifications for the improvement and expansion of Papillion Creek waste treatment plant in Omaha be completed by September 1, 1957 and contract awards for construction of this facility be made by January 1, 1958; that detailed final plans and specifications for North Omaha interceptor sewers (Burt-Izzard District and above) be completed by July 1, 1958 and contract be awarded for the construction of this

facility by January 1, 1959; that detailed final plans and specifications for North Omaha sewage treatment plant be completed by September 1, 1958 and contract be awarded for this facility by January 1, 1959; that detailed final plans and specifications for South Omaha interceptor sewers (below Douglas Street Bridge) be completed by September 1, 1959 and contract be awarded for this facility not later than January 1, 1960; that detailed final plans and specifications for a South Omaha sewage treatment plant be completed by September 1, 1959 and that a contract be awarded for this facility not later than January 1, 1960.

8. That the City of Omaha authorize the engineering study for South Omaha interceptor sewers and a South Omaha treatment plant by July 15, 1957.

9. That the City of Omaha, Nebraska, submit the financing of its proposed waste treatment facilities to its voters in November 1957.

10. That the Nebraska Department of Health and the Iowa State Department of Health report to the other conferees periodically as to progress. Such reports are to be made at not less than 6 month intervals. Included in the Nebraska report are to be statements on the meeting of the above schedule by the City of Omaha, the progress made to eliminate the discharge of untreated paunch manure, stock manure and bedding wastes from the stockyard district

of Omaha, into the Missouri River, and the progress made by Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth, Nebraska, in installing adequate waste treatment facilities.

11. The Iowa reports will detail progress being made by Council Bluffs and Carter Lake, Iowa in installing adequate waste treatment facilities.

Now, I have a tabular presentation in the report. I think each of you conferees and most of you folks have a copy of this, showing the progress or the status of waste treatment facilities for each of these mentioned areas since the previous conference. However, the nature of the Omaha, Nebraska situation requires a little more detailed explanation.

(The following is Table 1.)

TABLE 1

STATUS OF TREATMENT FACILITIES

COMMUNITY AND TREATMENT FACILITY	STATUS OF CONSTRUCTION	TYPE OF TREATMENT
Blair, Nebr.	Completed 1959	Primary
Omaha, Nebr.		
Papillion Creek	Completed 1960	Secondary
Missouri River Treatment Plant	Complete - not in operation	Primary
Council Bluffs, Iowa	Complete 1963	Primary
Carter Lake, Iowa	Complete 1963	*
Ralston, Nebr.	Complete 1962	Secondary (to Papillion Creek)
Millard, Nebr.	Complete 1964	Secondary
Bellevue, Nebr.	Complete 1962	Primary
Glenwood, Iowa	Under construction	Secondary
Plattsmouth, Nebr.	Completed 1962	Primary
Nebraska City, Nebr.	Complete 1964	Primary
Peru, Nebr.	Complete 1936	Secondary**
Rockport, Mo.	Complete 1962	Lagoon
Tarkio, Missouri	Complete 1959	Lagoon

* Connection has been made to Omaha Municipal South Omaha Interceptor which will be served by Missouri River Treatment Plant.

** Needs remodeling.

The recommended modifications to the Papillion Creek treatment plant and appurtenances were completed and placed in operation in July 1960. After detailed study the City's consulting engineering firm determined that rather than build two new treatment plants to treat the balance of Omaha's wastes as recommended by the Conferees following the 1957 Conference, the City should build one treatment plant -- The Missouri River Sewage Treatment Plant. This proposal was adopted and when the current Omaha Pollution Abatement Construction Program has been completed all wastes generated in the City will be discharged to either the Papillion Creek Sewage Treatment Plant or the Missouri River Sewage Treatment Plant.

Plans and specifications were developed by the consulting engineering firm. It was necessary to survey the Omaha area to determine the amount of domestic and industrial wastes generated in the city and to provide capacity in the entire system for a reasonable amount of growth by industry and by the population.

It was determined that the Omaha City Code (Appendix I) requiring reduction of industrial wastes prior to discharge to the municipal system would be applicable to at least three major Omaha industries. These industries were the Packing Industry, the Quaker Oats Company and Omaha Public Power Company. In sizing the various units of the disposal system consideration was given to the substantial waste removals to be achieved by industrial in-plant waste reduction programs.

(The following is Appendix I.)

PLUMBING CODE

47.68.070 Industrial Wastes. It is hereby declared to be unlawful for any factory, stockyard, slaughter house, rendering plant, tannery, or other establishment to make or cause to be made any connection to the sewerage system of the City of Omaha for the disposal of solid wastes except as herein provided. Any factory, rendering plant, tannery, or any other building or establishment of any kind which handles offal, garbage, filth, or other solid industrial waste, other than domestic sewage, that will not readily disintegrate, or digest in domestic sewage, treatment works, or plants, and that may collect in sewers or impede the flow of sewage through same or accelerate putrescibility of the sewage shall, before connecting with any of the City sewers, install traps or interceptors of sufficient size to handle all sewage coming from such places. Said trap or interceptors shall be designed so as to intercept, catch, or collect any and all of the objectional substance above described and prevent same from entering the City

Sewers.

Said interceptors or traps shall be provided with sufficient baffles and screens to accomplish the results as described in the preceding paragraph. Before installing such trap or interceptor a plan or diagram of same shall be submitted to the Plumbing Board for approval. The Plumbing Board and the City Engineer shall approve any trap or interceptor they shall find to be adequate to accomplish the results above described and after such approval shall permit connection to be made to the City sewer. (Ord. 18267 § 17.7, as approved by Res. 5890; September 24, 1956).

47.68.080 Industrial grease waste. In a packing plant or slaughter house or rendering plant or similar establishment, where grease wastes and other objectional wastes, as described in Section 47.68.070, are both handled, the grease trap shall be required only where the grease wastes are handled and the traps or interceptors described in said paragraph shall be required only where the said other objectionable substances are handled. (Ord. 18267 § 17.8, as approved by Res. 5890; September 24, 1956).

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The Missouri River Sewage Treatment Plant was designed with two waste inlet points, the south interceptor coming in from the north and the Monroe Street interceptor from the south. Wastes entering the plant through the North inlet (south interceptor) will contain most of the domestic sewage received by the plant plus some industrial wastes. The South inlet (most of Monroe Street interceptor) will receive wastes carried by the Monroe Street Sewer, the South Omaha Sewer, and the "U" Street Sewer. Wastes contributed to the plant via the South inlet will contain domestic wastes from some 58,000 people plus industrial wastes from all but one of the packing plants in Omaha (Table 2).

(The following is Table 2.)

TABLE 2

OMAHA MEATPACKERS

National Packers

Armour & Co. (1)
Cudahy Packing Co. (2)
So. Omaha Packing Co. (2)
Swift & Co. (1)
Wilson & Co. (1)

Independent Packers

B. Rothschild & Co. (2)
Cornhusker Packing Co. (2)
Eagle Packing Co. (2)
Hoffman Packing Co. (1)
Greater Omaha Packing Co. (2)
John Roth & Sons (3)
Kingan Div. Hygrade Foods (2)
Midwest Packing Co. (2)
Nebraska Beef Co. (2)
Nebr.-Iowa Dressed Beef Co. (2)
Omaha Dressed Beef Co. (2)
Omaha Packing Co. (2)
O'Neill Packing Co. (1)
R & C Packing Co. (2)
Union Packing Co. (2)

(1) Discharges to Monroe Street Sewer

(2) Discharges to South Omaha Sewer

(3) Discharges to Papillion Creek Sewage Treatment Plant

Quantities used as the basis of plant design (Appendix II) were appropriately reduced to conform with the inplant waste reduction program specified by Omaha City Code.

(The following is Appendix II.)

BASIS OF DESIGN
For
OMAHA, NEBRASKA SEWAGE TREATMENT

	Population		Hydraulics			B. O. D.		Suspended	Solids			Grease		
			M. G. D.			Lbs./Day		Lbs./Day		Volatile		Lbs./Day		
SEWER	Present	Future	Present	Future	Design	Present	Future	Present	Future	%	Lbs.	Present	Future	Remarks
Bridge St.	2,667		0.116	0.476	0.476	444	793	533	952	85	809			1
Mormon St.	4,824		0.285	0.372	0.603	804	1,050	965	1,260	85	1,071			1
Minne Lusa	27,919		3.700	4.000	4.000	8,120	10,200	7,400	8,150	85	6,927			
Grace St.	26,050		2.841	3.000	3.000	10,700	11,300	3,160	7,000	82	5,740			2
Burt Izard	35,796		5.485	6.000	6.000	10,380	11,300	7,930	8,650	90	7,785			3
Chicago St.	2,977	126,983	0.726	1.500	1.830	2,525	5,220	1,245	2,570	92	2,364	2,375	4,900	4
East Omaha	2,800	5,600	0.010	1.400	1.400	418	935	560	1,120	90	1,008			1
Carter Lake	1,600	3,600	0.160	0.700	0.700	267	601	320	720	90	648			1
Douglas	583	600	0.392	0.700	0.700	3,775	6,750	9,925	17,700	90	15,930	5,190	9,225	
Farnam			0.415	0.520	0.660	5,510	6,920	5,190	6,500	64	4,160	1,920	2,420	
Harney			0.094	0.130	0.130	45	62	50	69	57	39	39	54	
Jones			0.650	0.800	0.800	280	280	2,620	2,620	20	524			
Leavenworth	33,917	35,000	8.690	12.200	12.200	29,340	29,340	23,125	23,125	84	19,425			5
Quaker Oats			0.250	0.250	0.250	17,368	17,368	458	458	100	458			6
Pierce			0.565	0.620	0.620	3,075	3,075	680	680	51	347			
Hickory			1.113	1.500	1.610	810	1,300	1,335	1,662	60	997			7
Martha			0.184	0.230	0.230	310	310	240	240	84	202			
Spring			0.015	0.045	0.045	25	25	30	30	80	24			
Grover			0.144	0.180	0.180	240	240	280	280	90	252			
Riverview			0.507	0.950	1.050	495	1,600	470	1,900	77	1,463	120	150	
Homer			0.022	0.043	0.043	52	103	63	123	73	90			1
Miss. Ave.	16,271	17,500	0.343	0.560	0.560	650	817	885	1,111	81	900	265	265	
SUB TOTAL	155,404	189,288	26.707	36.176	37.087	95,633	109,589	67,484	86,920	82	71,163	9,909	17,014	
So. Omaha			2.980	4,970	3.51	45,750	25,996	43,550	21,652	83	17,971	19,990	4,800	8
"U" Street			0.022	0.043	0.043	52	103	63	123	73	90			1
SUB TOTAL			3.002	5.013	3.553	45,802	26,099	43,613	21,775	83	18,061	19,990	4,800	
Monroe	37,210	54,100	18.720	26.62	31.40	163,375	133,536	115,670	135,574	89	120,661	53,880	45,767	9
TOTAL	192,614	243,388	48.429	67.809	72.040	304,810	269,224	226,767	244,269	86	209,885	83,779	67,779	

1. Calculated
2. Contains Brewery (B-3) wastes
3. Contains Steel Manufacturers (M-2) Wastes
4. Contains Metal Smelter (M-1) and Food Processors (F-1) Wastes
5. Contains Brewery (B-1) and Food Processors (F-2, F-3, F-4) Wastes
6. Contains Furfural Manufacturers (F-5) Wastes
7. Contains Brewery (B-2) and Soap Manufacturers (S-1) Wastes
8. Contains Packing Houses (P-1 through P-9) Wastes
9. Contains Packing Houses (P-10 through P-18) and Stockyards (P-19) Wastes

The plant was designed to provide an effluent which will conform to the Water Quality Objectives adopted by the Engineering Section of the Missouri Basin Health Council, January 7, 1954 (Appendix III).

(The following is Appendix III.)

WATER QUALITY OBJECTIVES

Present water uses, increased usability due to improved water quality, and protection of water rights and property values largely determine pollution control measures needed. The goal of water pollution control programs is to preserve water quality to best serve these interests.

The Engineering Section of the Missouri Basin Health Council, consisting of the chief sanitary engineers of the 10 Basin States, adopted on February 27, 1952, objectives* as a guide for water pollution control programs in the Basin. The tentative guide has been employed by the States in the development of their comprehensive program as presented in this report. It is recognized by the States that changes in conditions, particularly as they may affect water uses, and alterations in types of water uses, may require future moderations in any established standards. The tentative objectives as adopted by the States of the Basin are quoted as follows:

"Subject to (a) such higher objectives as may be desired by any State and (b) such other modification as may be deemed necessary, after appropriate investigation, by the State Water Pollution Control Agency concerned, the Engineering Section, Missouri Basin Health Council recommends the following for consideration by the member States as a tentative guide for water pollution control activities in the Missouri Drainage Basin:

1. Toxic Substances including metallic ions, phenolic compounds, oils, alkalies, and acids should be virtually eliminated from sewage effluents.

2. Removal of settleable and floating solids to prevent sludge banks, floating materials, and nuisance conditions should be required as the minimum acceptable treatment.

3. For industrial wastes similar in nature to municipal wastes, treatment should be based on the same premise as recommended for municipalities. For industrial wastes not comparable to municipal wastes, treatment should be provided as necessary to prevent deterioration of water quality for beneficial uses in the receiving stream.

4. Additional treatment over that specified in item 2 above should be provided as necessary to protect downstream water uses. Quality objectives for certain water uses are:

(a) For water serving as a source of domestic supply, raw water bacteriological quality should conform to that recommended in "Manual of Recommended Water Sanitation Practices, 1946, Public Health Bulletin # 296," pages 11-13.

(b) 'For bathing or swimming waters, monthly arithmetical average 'most probable number' of coliform organisms should not exceed 1,000 per 100 ml. during any month of the recreation season; nor exceed this number in more than 20 percent of the samples examined during any such month; nor exceed 2,400 per 100 ml. on any day. For nonbathing or nonswimming waters, the monthly arithmetical average 'most probable number' of coliform organisms should not exceed 5,000 per 100 ml. in any month of the recreational season, nor should exceed this number in more than 20 percent of the samples examined during any such month.'

(c) For fish and aquatic life a minimum oxygen concentration of 5.0 ppm. is desirable in waters otherwise offering suitable fishery habitat, with 6.0 ppm. for trout streams.

(d) For bacteriological quality of irrigation water:

(1) Sewage used for irrigation of forage crops should be given treatment insuring a consistent reduction in coliform bacterial of not less than 90 percent.

(2) Sewage used for irrigation of human food crops should be given treatment insuring a consistent reduction (a) in suspended solids of not less than 75%, (b) in 5 day 20°C. B.O.D. of not less than 75% and (c) in coliform bacteria of not less than 98 percent, unless discharged into a stream where the volume of dilution water, available during the low flow periods during which irrigation diversions may occur, is at least 10 times greater than the anticipated maximum daily volume of sewage, in which case a bacterial reduction of 90 percent may be acceptable.

Provided, however, that where the time of passage from plant discharge to irrigation diversion is such as to permit the normal death rate of bacterial as evidenced by the die-away curve to provide equivalent bacterial reduction, the requirements of (1) and (2) above may be appropriately modified."

*Action by Engineering Section, Missouri Basin Health Council on Jan. 7, 1954, reaffirmed the Guide and eliminated the qualification "tentative."

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Plans and specifications for the construction of the Missouri River Sewage Treatment Plant and appurtenances were approved by the Nebraska State Department of Health on February 20, 1961 and by the Public Health Service on February 27, 1961. These approvals were based on the understanding that the packing house wastes would be pretreated with pretreated effluent discharged to the Missouri River Treatment Plant.

The record of events during the development of the overall Omaha waste treatment program indicates that various meetings and planning sessions were carried out by representatives of the City Government, Industrial representatives, the State Health Department, and the consulting engineering firm. The Missouri River Sewage Treatment Plant design contemplated inplant reduction of packing plant industrial wastes prior to discharge to the municipal sewage treatment plant. In March of 1964 the Public Health Service was advised that inplant industrial waste reduction construction was not keeping pace with municipal construction and further, that the Omaha Packing Industry had negotiated with the City Government regarding the construction of industrial waste treatment facilities by the City at a central point rather than by individual industries.

As of July 1, 1964, the Missouri River Sewage Treatment Plant was complete in accordance with plans and specifications which had been approved by the State and Federal Water Pollution Control Agencies.

Progress in providing inplant reduction by the three industries requiring such treatment is as follows:

Quaker Oats Company - Inplant reduction and all treatment facilities are ready to be placed in operation at the time the Missouri River Sewage Treatment Plant begins operation.

Omaha Public Power Company - Inplant reduction and all treatment facilities are ready to be placed in operation at the time the Missouri River Sewage Treatment Plant begins operation.

Omaha Packing Industry - All except one[1] of the 20 packers (Table 2) discharge wastes to one of the two major sewer systems in the

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[1] The exception, located in the Papillion Creek drainage area discharges to the Papillion Creek Sewage Treatment Plant.

City. These two major systems are the South Omaha and the Monroe Street Sewers which are to discharge to the Missouri River Sewage Treatment Plant through the South inlet.

In accordance with the Omaha City Code, some of the packers have initiated the construction of solids removal and de-watering facilities. At the present time, a large portion of blood and grease is being removed from the packing industry wastes. However no paunch manure removal facilities are in operation. It has been estimated that up to 300 tons per day of paunch manure is being discharged to the Missouri River.

The Missourir River Sewage Treatment Plant was designed and constructed to receive a maximum flow of approximately 72 million gallons of wastes per day. Of this total, approximately 35 million gallons is expected to be contributed through the south inlet to the plant by the three sewer lines containing packing house wastes -- South Omaha Sewer Line, "U" Street, and Monroe Street. The remaining 37 million gallons per day entering the plant through the North inlet was allocated for domestic wastes and certain other industrial wastes, some of which are to receive inplant reductions. Present total design flow is about 48 million gallons per day with about 27 million gallons per day entering the plant through the north inlet and 21 million gallons per day from the south. Other criteria used in design, such as Biochemical Oxygen Demand, Suspended and Volatile Solids and grease were based on appropriate inplant reduction by the three principal industries previously mentioned -- Packing Industry, Quaker Oats Company and Omaha Public Power Company.

The Missouri River plant is capable of treating wastes to be received through the north inlet. Wastes to be discharged to the plant from the south contain the packing industry wastes which have not received anticipated inplant reduction and therefore cannot be discharged to the plant.

The Conferees of the Conference held June 14, 1957 determined that the major source of pollution in the stretch of the River under consideration was being discharged by Omaha, Nebraska. The City of Omaha has expended large sums of money providing waste collection and treatment facilities. However to date, the quantities of untreated wastes being discharged to the Missouri River are roughly equivalent to those discharged June 14, 1957.

SUMMARY AND CONCLUSIONS

A Conference in the matter of pollution of the interstate waters of the Missouri River -- Nebraska, Kansas, Iowa, Missouri, was called by the Surgeon General of the U. S. Public Health Service at Omaha, Nebraska, June 14, 1957. The Conference was called on the basis of reports, surveys and studies, indicating interstate pollution in the stretch of the Missouri River from just upstream from Omaha, Nebraska, to a point immediately upstream from St. Joseph, Missouri.

The Conferees determined that pollution of interstate waters was, in fact, interfering with water uses in States other than that in which the wastes causing the pollution originated and that the major source of this pollution was Omaha, Nebraska.

A proposed time schedule for the construction of pollution abatement facilities for sources of wastes along the stretch of the River under consideration was adopted by the Surgeon General of the U. S. Public Health Service.

Treatment facilities have been constructed and placed in operation in accordance with the recommended time schedule for all sources of wastes entering this stretch of the Missouri River, except the major source -- Omaha, Nebraska.

The City of Omaha, Nebraska has made substantial progress in constructing pollution abatement facilities and the necessary appurtenances. However, the construction of inplant waste reduction practices and/or facilities by the packing industry has not kept pace with the Omaha Municipal Construction Program. When the Omaha Pollution Abatement Program has been completed, two sewage treatment plants will serve the City -- the existing Papillion Creek Sewage Treatment Plant and the new Missouri River Sewage Treatment Plant, which has been completed but is not in operation.

The Missouri River Sewage Treatment Plant cannot receive approximately one-half of the volume of wastes for which it was designed because the packing industry has not provided inplant waste reduction programs contemplated in the design and construction of the sewage treatment plant. A substantial waste reduction program of packing industry wastes must be inaugurated before these wastes can be discharged to the municipal treatment plant.

While the City of Omaha, Nebraska has made substantial progress in providing waste treatment facilities, it has not fully complied with the recommendations developed at the first session of the Conference.

RECOMMENDATIONS

It is recommended that:

1. The north portion of the Missouri River Sewage Treatment Plant be placed in operation as soon as possible,

and that

2. Facilities be developed forthwith to prevent, at all times, discharge of paunch manure and other settleable and floating materials to the Missouri River.

MR. STEIN: Thank you, Mr. Townley. Are there any comments or questions?

MR. SAMSON: I would like to have Mr. Townley elaborate a little further on that last conclusion that he has there.

I don't have a copy of your report, Mr. Townley, but it is the last conclusion there.

MR. TOWNLEY: There should be one at your seat.

MR. SAMSON: Thank you. Could you elaborate just a little further on that last recommendation?

MR. TOWNLEY: The last recommendation was that facilities be developed forthwith to prevent, at all times, discharge of paunch manure and other settleable and floating materials to the Missouri River.

Is that what you have in mind?

MR. SAMSON: Yes, that is what I had reference to. Are you referring now to inplant housekeeping, or the facility that there has been some discussion on as an addition to the facility at the treatment plant?

MR. TOWNLEY: Well, this is a general recommendation. I don't think it is in the province of the report to state how it should be done. I mean, this was, in our opinion, what should be done, but I don't think it is within our province to say how.

MR. SAMSON: I see. Thank you very much.

MR. STEIN: Are there any questions or other comments?

MR. CLARE: Mr. Chairman?

MR. STEIN: Yes.

MR. CLARE: Mr. Townley, in order that your report might be complete in respect to Federal installations, I am sure that the conferees and others here would be interested in knowing what the status may be of Federal installations with separate waste outlets in this conference area.

MR. TOWNLEY: Yes. There are several Federal installations located within the City of Omaha, and practically all of those are connected to the municipal collection system.

Outside of the city, we have, of course, the largest one in the area, and that is the Offut Air Force Base. Offuct has secondary treatment. We have evaluated it on two separate occasions. The treatment is very good. The plant at this time is near capacity, but is providing a high degree of treatment.

There is a missile headquarters base at the northwest edge of the city providing its own treatment. Here treatment is very good.

There is another missile installation east of the river in western Iowa, and that treatment is very good.

MR. STEIN: What kind of treatment is that, Mr. Townley?

MR. TOWNLEY: All of that is secondary treatment. The missile sites have lagoons, and the Offut Air Force Base was sedimentation with trickling filters.

Those are the principal Federal installations.

MR. SAMSON: I have just one other question.

The Omaha facility provides only for primary treatment; isn't that right?

MR. TOWNLEY: I think that is so, yes.

MR. SAMSON: Do you have any idea, Mr. Townley, on what the additional costs of an installation of secondary treatment are as far as Omaha is concerned, if that should ever come into being or ever be necessary?

MR. TOWNLEY: No, sir, I do not.

MR. SAMSON: Thank you.

MR. STEIN: I would like to point out, so that there will be no misunderstanding here, that the recommendations that Mr. Townley just made are the recommendations of the investigator, and not necessarily recommendations of the conferees.

These will be arrived at later. They may either be adopted, modified, rejected, amended, or what have you. But we ask every investigator who looks into a situation to come up with his report and his conclusions, if this is to be meaningful. These are the recommendations of the investigator.

However, I have one comment, and this is on that last one that Mr. Townley mentioned, which was discussed by Mr. Samson.

The recommendation was: "Facilities be developed forthwith to prevent, at all times, discharge of paunch manure and other settleable and floating materials to the Missouri River."

In developing any recommendation, we have long held that it is not the function of the Federal Government to direct a state, municipality or anyone else, or tell them how to accomplish the result. This is a state and local matter.

What we are thinking is in terms of the result on the river, and I think you have to understand the extent of our jurisdiction.

We are dealing here, as always, with a delicate area of Federal-state relations, and this is always to be jealously guarded. The Federal function is to see that the pollution in the river does not endanger health or welfare, particularly, in this case, of persons in another state.

The methodology and the technique by which this is done is left to the state agencies, the municipalities and the industries involved, and I think this should make the position clear so that you can understand this as we go forward with the conference.

Are there any other comments or suggestions?

(There was no response.)

MR. STEIN: If not, thank you again, very much, Mr. Townley.

Mr. Clare?

MR. CLARE: As I indicated previously, there are several Federal agencies interested in the Missouri River and its development. One of the departments which has considerable responsibility in this development is the Department of the Interior.

Today we have Mr. Harrell F. Mosbaugh, who is the Regional Coordinator of the Missouri River Basin for the Department of the Interior.

I understand that Mr. Mosbaugh will present a statement for the Department, and, if you would, when you get up here, Mr. Mosbaugh, introduce other people in the Department, we would appreciate it. I see Mr. Jarecki here, and there are probably others.

Mr. Mosbaugh.

STATEMENT OF HARRELL F. MOSBAUGH, REGIONAL COORDINATOR, MISSOURI BASIN REGION, OFFICE OF THE SECRETARY, DEPARTMENT OF THE INTERIOR, BILLINGS, MONTANA

MR. MOSBAUGH: Mr. Chairman, Conferees, Ladies and Gentlemen:

We have in the audience here E. A. Jarecki, Bureau of Reclamation, Region 7, Denver.

We also have in the audience Keith Hay, Bureau of Outdoor Recreation, Denver.

I don't know whether Mr. Colbertson is here or not. He was scheduled to be here.

MR. PETRI: No. I am here in his place.

MR. MOSBAUGH: Thank you.

I appear here today as a representative of the Department of the Interior and its respective bureaus that are responsible for various phases of natural resources management and development.

The conservation, development and wise use of natural resources are of great importance in satisfying economic, social and health goals of our population.

Probably the most important element in the realm of human requirements is water.

It is the policy and objective of the Department of the Interior to develop, protect, conserve and utilize water in such a manner that will insure the highest quality practicable.

Recreation

Several Department of the Interior bureaus are responsible for or involved in providing water-oriented outdoor recreation which requires a high degree of water quality. The Recreation Advisory Council, whose members are Secretaries of Interior; Commerce; Agriculture; Defense; Health, Education, and Welfare; and the Administrator, Housing and Home Finance Agency, issued a declaration of policy on water pollution on April 9, 1964. This policy was activated by Executive Order 11017.

The following excerpts from this statement of policy more clearly demonstrate the relationship of water-oriented outdoor recreation and pollution:

> "It shall be the Recreation Advisory Council policy that (1) recreation be recognized as a full partner with other beneficial water uses in water quality management policies and programs, (2) the water resources of the Nation be maintained as clean as possible in order to

provide maximum recreation opportunities, and (3) all users of public waters have a responsibility for keeping these waters clean. ......

"All Federal agencies having responsibilities in the field of water pollution should coordinate such activities with each other. In turn, these activities should be coordinated wherever possible with State and local agencies having responsibilities in the field of water pollution in order to further a unified and effective effort in the following endeavors:

1. Development of comprehensive river basin water pollution control programs that protect outdoor recreation water uses;
2. Development of a set of principles for water quality standards for outdoor recreation, wildlife, fish, and other aquatic uses which could be applied where appropriate for the particular use involved;
3. Development of water quality monitoring systems for the protection of outdoor water recreation areas;
4. Development of water pollution research programs benefiting outdoor recreation, wildlife, fish, and other aquatic life;

5. Provision of technical services in water pollution prevention and control relating to outdoor recreation, wildlife, fish, and other aquatic life; and

6. Development of a set of principles as guides to the adoption of local standards by the appropriate State agencies to protect outdoor recreation uses and Federal investments for recreation in water resource developments."

Reclamation

The Bureau of Reclamation, in its 62-year history, has been interested in the development of western water resources for the generation of hydro-electric power, the enhancement of irrigation water supply, the abatement and control of disastrous floods and the provision of regulation of stream-flow for the improvement of water quality, navigation, and varied recreational benefits.

As time has progressed, the Bureau has found its position one of having to consider the greater number of projects as being multiple-purpose projects and as of the last decade, providing for the rising needs of municipal water supply, which has become one of the major considerations in project development. In this respect, there has been a higher concentration of interests in the quality of water and pollution abatement.

In the Missouri River Basin, there are many projects in operation, in the construction stage, and in the planning stage. Most of these multiple-purpose developments are on tributaries to the Missouri River. However, nearly all are located quite some distance from the main stem of the river. In each of these projects the Bureau has been and always will be very concerned with the quality of the surface flows and ground water supplies as they are related to the provision of potable water for human consumption, as well as the betterment of waters for use in irrigation.

The South Platte River Basin in Colorado and Nebraska, which comprises 4-1/2 percent of the area, contains some 15 percent of the total inhabitants of the Missouri River Basin. In this basin, there exists several problems of poor quality water and instances of pollution by industry, irrigation, mining, and municipal wastes. The Public Health Service has conducted several studies in the South Platte River Basin, and the Bureau is in whole-hearted accordance with the need of these studies and the corrective measures they conclude.

In the Ainsworth Unit in Nebraska, Glendo Unit in Wyoming, and Bostwick Division in Nebraska and Kansas located on other tributaries which eventually flow into the lower Missouri, accommodations have been made for pollution abatement.

There is an abundance of statistical data that is available concerning pollution problems in any of the basins within the Missouri River Basin Project with which you are fully aware. In its many developments within the Missouri River Basin, the Bureau of Reclamation has made and will make every effort to cooperate with other agencies in providing control for the adequate water supply and delivery of clear waters for the many uses that exist today and will exist in the future.

It is realized that as expansions are made in our economic growth, the provisions for an adequate water supply are going to be paramount problems. It is also realized that this same water supply is one of our most precious natural resources and that it is an economic asset in the Missouri River Basin to be used rather than treated as a potential scarce commodity for the future. Those in the Bureau of Reclamation feel that their primary purpose is to help in every way possible in seeing that this greater water resource is delivered for human consumption, for industrial uses, and for the supply of our irrigation needs with the highest quality possible. They are interested in eliminating causes of pollution, providing whatever means are necessary to abate pollution, and in keeping the main stem of the Missouri River as clear and useable as possible. They are interested in any device that will make waters already polluted fit whatever needs that exist for the advancement of mankind and any program that may be conceived in the future that allows the purification and control of water resources.

U. S. Geological Survey

The responsibilities of the U. S. Geological Survey in the Missouri River Basin include investigations of the quantity, quality, and distribution of the available water supplies and the solution of water problems to aid in the conservation and sound management of the water resources.

Interest in the quality of water, especially as it relates to irrigation development is of long standing in the Survey. During the period 1905-06, a study was made by the Survey to determine the influence of the salinity of waters on the growth of crops and the effect of sedimentation on the silting of canals and reservoirs. Of 55 sites where water-quality records were obtained for this study, 7 were in the Upper Missouri River Basin. Unfortunately, this early study was discontinued because of lack of funds. In 1945, studies were started at many sites throughout the basin as a part of the Department of the Interior's Program for Development of the Missouri River Basin.

Downstream from Fort Randall Dam, records of the quality of water in the Missouri River main stem are available for one year (1906-07) near Omaha, Nebraska; Kansas City, Missouri; and Ruegg , Missouri; and for three years (1956-59) at Kankton, South Dakota. Analyses of numerous samples are available at several sites dating back to 1945. Currently records are being obtained by the Survey at only two sites -- at Boonville, Missouri, where temperature records date back to 1953 and at Nebraska City, Nebraska, where chemical quality and temperature records date back to 1951. No records of sediment transported by the Missouri River in this reach are being obtained by the Geological Survey. Although the principal purpose of the Nebraska City records is to provide information on the long-term effects of irrigation on the quality of the Missouri River water, they are helpful in detecting pollution by dissolved minerals.

On tributaries to the Missouri River, water-quality records are presently being obtained regularly at about 120 sites in Nebraska, Iowa, and Kansas as a part of cooperative programs with these States and of the Missouri River Basin Program. Of these sites, 26 are in Nebraska, 11 in Iowa, 80 in Kansas, and 3 in Missouri.

These records are helpful in identifying the tributaries which contribute significantly to the load of dissolved inorganic materials and of suspended sediment carried by the Missouri River. Also, the records are needed to evaluate the effects of tributary inflow on the quality of the river water.

Fish and Wildlife

The Fish and Wildlife Service is concerned with both sport and commercial fishing and the waterfowl habitat that is closely related to the quality or suitability of water in the Missouri River below Sioux City. National publicity given to a vast kill of fish in the lower reaches of the Mississippi and Missouri Rivers in recent months has pointed up the importance of careful attention to stream sanitation and water quality. Chemicals in ever greater numbers applied to the land and waters of the watershed as herbicides, insecticides, pesticides, and fertilizers finding their way into watercourses by natural drainage and runoff, are more and more to be reckoned with. Development of industry and urban growth results in increased domestic and industrial wastes that if not adequately treated result in stream pollution and directly or indirectly affect the well-being of fish and wildlife. Where these resources suffer, the recreation associated with hunting and fishing also suffers. Any efforts leading to the prevention or alleviation of pollution and benefiting the water of the stream, such as control of taste and odors, improved dissolved oxygen content, reduction of silt, or any other measure improving the quality of water, will be reflected significantly in enhanced fish and wildlife resources.

And I might add that the use of these resources is becoming more and more a major economic factor.

Minerals

The Bureau of Mines has a particular interest in stream-pollution abatement in the Missouri River Basin because a vast, basinwide, minerals industry is concerned. Historically the minerals industry as a whole has been aware of its responsibilities in preventing its wastes from contaminating streams. Luckily, there are few, if any, baneful pollutants in the Basin that were created by the minerals industry, and such pollutants, if any exist, probably can be eliminated almost entirely through determined action by the offending operators.

Those portions of 10 States that constitute the Missouri River Basin drainage were the sources in 1962 of nearly $1 billion worth of raw minerals and fuels.

All States of the Basin except Nebraska and

Minnesota contain reserves of coal; all but Iowa, Missouri, Minnesota, and South Dakota produce natural gas; and all but Iowa, South Dakota, Missouri, and Minnesota have proved crude oil reserves. All States except Iowa and South Dakota have oil refineries.

Countless mines and mills are operated within the Missouri River drainage system, and smelters and refineries for the production of copper, lead, and zinc and minor metals are established in Montana, Nebraska, and Colorado.

South Dakota has one of the larger gold-producing mines and gold-recovery mills of the world. Along with Wyoming the two States rank high in the production of uranium. The producing iron mines of Wyoming and the great undeveloped iron deposits of South Dakota foreshadow establishment of important industries in the Basin.

In the vicinities of communities, sand and gravel pits and stone quarries, and plants used in the manufacture of products from minerals, such as portland cement, plaster and plaster board, ground feldspar, and mica are operated, all of which might pollute the streams if their waste products were not taken care of.

The above are the principal mineral-producing and processing facilities in the Basin.

The Bureau of Mines has several water-study programs in effect -- one as a regular authorization financed with Bureau funds, the others funded by Missouri River Basin Project funds.

The Bureau's interests in mineral resources include studies of water needs of the minerals industries, and the effects, beneficial or adverse, that reservoir construction, watershed improvement, and soil-conservation measures might have on mineral resources.

Those activities have not included effects on streams from mine or plant effluents, and as yet no such studies by the Bureau have been proposed for the Missouri River Basin.

At the opening part of this session, reference was made to some of the accomplishments to date in pollution abatement. It has been my privilege to have been associated with this overall program for a period of about twenty years, and it is most encouraging to see and observe the progress that has been made in the overall field of pollution abatement. There are still some spots that need attention.

In consideration of the Department of the Interior's interest in water quality, it is recommended that the pollution which now exists in portions of the Missouri Basin, and particularly that reach of the river defined as interstate waters, be abated at the earliest possible date.

Thank you, Mr. Chairman.

MR. STEIN: Are there any comments or questions?

(There was no response.)

MR. STEIN: I want to thank you for the help you have given us with that pesticide problem.

I don't know if you have been reading the national press or the Washington press, but Mr. Coulter in the audience and myself have been, I think, under almost a constant attack in recent weeks, ever since we attempted to grapple with that problem.

I think you may want to consider this. While we are making progress, it seems the ingenuity of man always keeps ahead of us, and when they can put out a poison where a few drops of the poison can create untold damage, we really run into a very, very difficult problem.

We are measuring these pesticides. I think at least we and the Department of the Interior and the Department of Agriculture indicate that the amounts in parts per trillion in the water are enough to create death in fish hundreds of miles away, and we find it in parts per billion in the blood of the fish.

One of the key points, and one that isn't fully understood yet, is the mechanism by which these chemicals travel these long distances downstream. Some of them are not as water soluble as they might be.

One of the things being looked into is that the chemicals attach themselves to bits of fat and sewage, and as this is carried down the the river system, as the wastes begin to stabilize, the poisons which have adhered to them are slowly released.

I think this all the more points up the contribution that every city on the Missouri and the Mississippi and other rivers have to make in keeping this material out.

We are getting to a very, very, very complex age. We found one chemical, and that doesn't really relate to this operation, down around New Orleans, and it was traced by our investigators up to St. Louis.

When the plant at St. Louis stopped putting this in the stream, the chemical disappeared from the Mississippi River.

This will give you an indication of how far these things can travel. We do know that the Mississippi River, the way it is constituted, possibly because of the silt, possibly because of the discharge of these other solids to it, has been a very good carrier of pollutants for rather long distances, and I think it behooves us all to see that we can keep this river clean within our capabilities.

Mr. Clare?

MR. CLARE: Another Federal agency which has considerable responsibility on the Missouri River and its development, and the operation of the reservoirs, is the U. S. Corps of Engineers.

Major General George Walker is not here with us today, but Mr. Tim Warra is here.

Will you come up, please? Mr. Warra is in the Division Office of the Corps of Engineers.

I see William Northrup and probably some other corps members back there. If you would introduce them, I would appreciate it.

Mr. Warra.

STATEMENT OF T. WAARA, ACTING CHIEF, RESERVOIR CONTROL CENTER, CORPS OF ENGINEERS, MISSOURI RIVER DIVISION

MR. WAARA: Mr. Chairman, Mr. Clare, Conferees, Ladies and Gentlemen:

Mr. Chase represents our Omaha District here, and Mr. Northrop our Kansas City District Office.

My statement will be very brief.

The six Main Stem reservoirs assure dependable low flow augmentation for the Main Stem of the Missouri River. Also the Corps of Engineers constructed seven tributary reservoirs which make important contributions to low water augmentation. The six additional reservoirs under construction and additional four under design and the nine additional authorized reservoirs will make further important contributions in the future. With one exception all these additional reservoirs are on lower basin tributaries.

While low flow augmentation and water quality control are very important, we in the Corps recognize that they are not a substitute for pollution treatment. While existing pollution on the Main Stem of the River does not significantly affect commercial navigation, this pollution does pose a serious potential health hazard to recreational users of the stream. As a result of the stabilization of the river banks and streamflow regulation afforded by reservoirs, water based recreational use of the river is increasing rapidly. However, its full potential will not be realized until the dumping of untreated sewage wastes is eliminated.

Thank you. That is all I have.

MR. STEIN: Just a moment.

Are there any comments or questions?

(There was no response.)

MR. STEIN: I have one question.

What is your regimen now? What kind of low flow do you get at in the river here in, say, the non-navigation season?

MR. WAARA: Herb can probably expand on this, but back in 1950, the States' health people and the Public Health Service got together and came up with a recommendation on what the low flow rates should be, and we operate to try and maintain those.

For example, where during the navigation season we are maintaining 25,000 cfs here at Omaha, why, as I remember the requirement, it is about 3800 in the non-navigation season, in the months of March and April, for example, when the ice cover is off and the water is cold.

As I remember Omaha, I think the requirement, if we didn't have navigation, in July and August will come up to 8500 cfs, but that 8500 cfs, of course, is academic, because we are maintaining far more than that for navigation.

MR. STEIN: Just so that the point of the question won't be missed, again I want to point out that this is not an adversary proceeding.

For those people in the audience who don't know this, there are very few unregulated major streams being left in the country. Certainly the Missouri is not one of these unregulated streams. You don't have the wild river flowings that used to flow.

In other words, every bit of water is regulated going down the stream. The Corps of Engineers releases more water during the navigation seasons than it does during non-navigation seasons.

I have been through this plant or installation that they have in Omaha where they have a computer computing needs, rainfalls and everything to make up the amount of water that will be needed in the spring.

One of the points that I think we should keep in mind, and this is why I brought this out here, is if the Corps of Engineers reduces the stream flow in the Missouri River at Omaha to -- what, 3800 feet?

MR. WAARA: Yes, sir.

MR. STEIN: -- 3800 feet during the low period, and if at that point we have paunch manure discharged into the river untreated, or any other kind of untreated waste, this is a critical point that we very well should keep in mind, and I think this is the crux of the situation.

Again, for those people who are not familiar with this, and I have found this to be helpful, the best analogy that I found to use is an electric utility. In the working of the electric utility, you have to have facilities and equipment and manpower to meet your peak load. In other words, at four o'clock on a winter afternoon, say a few days before Christmas, when the men have turned on all their lights in the offices and the ladies have their lights on at home and have the TV set on and all the appliances working, there has to be enough equipment and enough juice coming through there to satisfy all needs, unless you are having a breakdown. This we accept and this we pay for.

In water pollution control, it works a little differently, particularly with these regulated streams.

The key point here is that we have to reasonably expect or look at the low flow of the stream and see if we are maintaining adequate treatment of the discharges to the stream so that the stream will not be grossly polluted at that time and possibly wipe out the biota -- that is, the animal life and the plant life there and set the stream back.

This is a key point that I think is background, and as we develop this conference this may very well be a key point in consideration.

Thank you very much.

MR. WAARA: Sir, may I add just one word?

MR. STEIN: Surely.

MR. WAARA: While its targets are, as I mentioned, this 3800 at Omaha, actually, since we began system operation, our winter releases have averaged, in general, 8,000 cfs or above. However, that does not mean that we have always had 8,000 at Omaha, and that is due to ice formation. We get ice blocks and literally form ice dams and hold the water back. We have had the flow drop low for a short period of time.

MR. STEIN: Thank you.

MR. WAARA: Thank you.

MR. STEIN: Mr. Clare?

MR. CLARE: I might just add one statement.

Mr. Waara indicated that I might elaborate on this just a little. I want to indicate that the Federal agencies who are responsible for the operation of the reservoirs, and the operation per se rests with the Corps of Engineers, there has never been any argument about releasing enough water in the Missouri River to satisfy the water supply and sanitation needs.

I think all of us realize that water released in the winter, in some respects, is wasted. It doesn't serve navigation. It is not the flood season. It is used for power generation, of course, but there has never been any quibbling over release of adequate water to serve water supply and sanitation needs, and, as Mr. Townley indicated, there are millions of people drinking out of the Missouri River from Omaha down, and some above here also.

We have been advised by Mr. C. Dale Jaedicke, who is the representative for the Department of Agriculture in the Missouri Basin that he is to be represented here today by Mr. J. Russell Batie from Lincoln.

Mr. Batie, would you stand, please? Do you have a statement?

MR. BATIE We do not have a statement.

MR. CLARE: All right. Thank you very much. We are glad you are here.

Is there anyone here from the U. S. Department of Commerce?

(There was no response.

MR. CLARE: I believe, Mr. Chairman, that that completes the list of Federal representatives who have indicated that they would attend the conference today and serve as participants.

MR. STEIN: Thank you.

Are there any comments on the Federal presentation?

(There was no response.)

MR. STEIN: If not, I think it may be well to stand recessed for ten minutes.

We will reconvene in ten minutes.

(After a short recess.)

MR. STEIN: May we reconvene?

Again, for the purpose of presenting all the material we have as early as possible so people can pick it up in their comments or statements, or to say what they wish about it, there have been inquiries from several people in the audience asking us to compute as to what the 300 tons a day estimate of paunch manure would be in terms of population equivalent.

We have asked these loyal engineers to compute this. I don't know how they do this -- this takes me about a week -- but they have come up with a population equivalent of 450,000.

At this point, we would like to call on the State of Nebraska.

Mr. Sutton.

STATEMENT OF C. N. SUTTON, CONFEREE AND CHAIRMAN OF THE NEBRASKA WATER POLLUTION CONTROL COUNCIL, STATE OF NEBRASKA

MR. SUTTON: My name is Neil Sutton. I am Chairman of the Nebraska Water Pollution Control Council.

I do want to take this time to point out, with a little civic pride, Mr. Stein, where Nebraska had their primary treatment plant completed in 1959.

That is all I am going to have to do for the local populace. We have several people who want to testify for the State of Nebraska, and we had a little continuity established, but I am going to ask Mr. Harry Trustin now if he would testify for the City of Omaha, to accommodate Mr. Trustin, so that he can attend a City Council meeting this afternoon.

So if you will please come forward, Mr. Trustin, and tell us what you have for the City of Omaha?

MR. TRUSTIN: Yes, I will be glad to do it.

STATEMENT OF HARRY TRUSTIN,
PRESIDENT OF THE CITY COUNCIL,
CITY OF OMAHA, NEBRASKA

MR. TRUSTIN: As President of our City Council, and speaking for the City Council, I can tell you that we hope to accomplish the financing for the paunch manure plant right out of our budget in the City of Omaha.

As you know, we had thought of placing the matter before the people under a bond issue, and when that was decided and since that decision was made, we have had some terrific floods in this area and lives were lost, tremendous property losses came about, and it may be necessary, because of what we are going to do in this area for flood control, to go to the people with a bond issue, so we don't want to confuse the situation with having a bond issue for paunch manure as well as the other. That is the reason for that decision.

Now, with reference to the tonnage of paunch manure, I would like to call your attention to the fact, if you don't already know it, that Omaha is blessed with the greatest packing industry in the world, right here in Omaha, and when we talk about paunch manure we are talking about paunch manure from this great, great industry.

I think the decision that was made is a wise one. The members of the council have allowed me to make this statement, although it hasn't been a matter of information for the whole city before this moment. There has been some information given to the public as to what we plan to do, but I thought this was the right time to tell the committee here that we do not depend on a bond issue to accomplish the disposal of paunch manure.

As you know, back in 1940 we built our Harrison Plant without any urging from the Governor or anyone else, and that plant is now taking care of the whole west side of our city.

Our city has a great divide, and the west side of our city flows into the stream on the west side, and all of our sewage disposal ingress was to that creek. The Harrison Street Sewage Disposal Plant, which is an activated sludge plant, was not only built in 1940, but it was increased in size because of the movement of population just in the past few years.

So we have well taken care of our sewage disposal in more than one half of our city -- no, not more than one half. The greatest part of our sewage disposal, of course, is on the east side of the divide, and we have just completed that plant.

Incidentally, that was on the basis of millions of dollars, when you consider all the interceptor sewers. The plant which has just been built cost in the neighborhood of 18, 20, or maybe more millions of dollars.

So, you see your compliment to Omaha, Mr. Stein, was very graciously accepted by all of us, and we appreciate your kind words, so that the people will know that you don't feel that we have been walking around in our sleep.

We thank you very much. I don't think there is anything else.

Engineering-wise, our engineering department is here. Colonel Sumner is here, our Public Works Director, and the engineering surveys that are being made are represented here, so any questions that you want to ask along that line will be answered.

Incidentally, the leaders of our packing industry are sitting right here. They have agreed to take care of the cost of operation and also the cost of maintenance for the next twenty years, so you see it is not just the City of Omaha operation, but it is also this great industry with a great heart that is cooperating with us.

We are very grateful to you. I make that statement publicly. We have Mr. O'Rourke, who is vice president of the Union Stockyards, and Mr. Holland, who is their attorney, here.

I thank you very much.

If there are any other questions, I may be able to answer them.

MR. STEIN: Thank you.

Are there any comments or questions here?

MR. SAMSON: I just had a question I wanted to ask Mr. Trustin.

MR. TRUSTIN: Yes, sir.

MR. SAMSON: As I understand it, you have been negotiating with the industry, and I am referring to the packing house industry, on a lease-purchase arrangement; is that right?

MR. TRUSTIN: The lease-purchase arrangement won't have anything to do with the packers. That will be a city affair.

We will place the plants if and when completed -- not if, but when completed -- for bids throughout the nation, and the City of Omaha will take from its budget, maybe on a lease-purchase plan that will last 10, 15 or 20 years, according to the best plan, and we ourselves will pay for the completion of the plant, while all the operation and maintenance will be taken care of by our great packing industry.

MR. SAMSON: Has that agreement been formally executed?

MR. TRUSTIN: Yes. We have a copy of all the signatures of the packers here in the city. It is in the hands of our City Attorney.

MR. SAMSON: I take it it hasn't been acted on by the City Council yet?

MR. TRUSTIN: No, but neither has the other. We haven't placed it formally, but I have received the right to make the statement, so you can understand that the Council will go along and do this thing.

MR. SAMSON: Thank you.

MR. TRUSTIN: I am speaking for the Council.

MR. SAMSON: Thank you, Mr. Trustin.

MR. TRUSTIN: Anything further? If not --

MR. STEIN: I should like to make this clear before asking you the question, and I think this is largely in clarification.

As far as the Federal Government is concerned, it is none of our affair as to how any works are financed. This again is peculiarly a local matter. Whether this is done by public financing, private financing, general obligation bonds, revenue bonds, out of the budget, or any combination thereof, should be and is within the province of the local jurisdiction.

The only thing that I think we are concerned with is that the financing be arranged in time so that the project would move forward without a delay, and an acceptable project would move forward without a delay.

As I take it here, and perhaps you want to answer this for clarification, you have the notion that you have worked out an arrangement with the packing houses where the city will pay money and the packing houses will pay for operating expenses, and it will not be necessary to go through the voters for a bond issue, but that this has not been formally acted upon by the City Council, although you are making the statement for the City Council.

In other words, it will necessitate formal action by the City Council?

MR. TRUSTIN: That is correct. That is correct, Mr. Stein.

MR. STEIN: Do you have any doubts that this will be forthcoming?

MR. TRUSTIN: I wouldn't be standing here making such a statement if I had any doubts.

I would be run out of town, incidentally. I have only been on the Council for 23 years.

MR. STEIN: Good.

MR. TRUSTIN: So you see they might be wondering whether I know what I'm doing.

MR. STEIN: I know. These questions are really for the record.

The question is how long does your City Council stay in? Will this financing be arranged during the term of this City Council?

MR. TRUSTIN: Yes, it will, because we are going to do this during the next three or four months. I mean we will get actively into it.

MR. STEIN: Do you get a new City Council in the November --

MR. TRUSTIN: Next May.

MR. STEIN: All right. Let me go off the record here.

(Discussion off the record.)

MR. STEIN: All right, Mr. Trustin.

MR. TRUSTIN: I think Omaha has a record that is rather unique and we have accomplished many things, certainly along the lines of pollution control. We don't run last anywhere.

Mr. Samson is on the committee and lives in Omaha, and is well acquainted with the actions of the city in pollution activities, and maybe he will approve of what I have said for the City of Omaha.

MR. SAMSON: I approve, Mr. President.

MR. STEIN: Mr. Sutton?

MR. SUTTON: One thing, Mr. Trustin. I don't know whether you are the man to answer or not, but is there anyone with the city who can tell us what the target date will be?

MR. TRUSTIN: I will leave that to the engineering department. Colonel Sumner is here, and I am sure if he will be asked some questions he will be able to answer them.

MR. SUTTON: Before you leave the podium, we want a little continuity with this thing.

You are a representative of the City of Omaha here. Will you call on the other people from Omaha in the order that you want them to appear?

MR. TRUSTIN: It is simply this: It you want any engineering information, or if you want to talk to the packers who are here, and who are here in the capacity of speaking for the packers, I hope you will hear from them, because I have made some rather broad statements here and I would like to have them backed up. The same is true with Colonel Sumner. I am sure you will want to hear from him.

At this moment, I think the packers are the most important spokesman after the statement that I have made.

MR. SAMSON: Thank you.

MR. TRUSTIN: May I leave then?

MR. STEIN: Yes. Is that all right? Do you have the other people from Omaha, and you will call them, Mr. Sutton?

MR. SUTTON: Oh, yes.

MR. STEIN: Thank you very much. It has been a pleasure having you with us.

MR. TRUSTIN: Thank you.

MR. SUTTON: Colonel Sumner, would you appear then for the City of Omaha, please?

STATEMENT OF COLONEL GEORGE B. SUMNER, DIRECTOR OF PUBLIC WORKS, CITY OF OMAHA, NEBRASKA

COLONEL SUMNER: Mr. Chairman, Conferees:

I am George B. Sumner, Director of Public Works, City of Omaha.

Do you want to ask me questions, or do you want me to just go ahead?

MR. SUTTON: We would like to have you go ahead, Colonel, and make your statement.

COLONEL SUMNER: All right.

Ladies and Gentlemen:

The plant, as you have heard, is completed, the interceptor sewer extending some twelve miles from the Mormon Bridge, the north boundary of the city, down to the plant and from Monroe Street up to the plant are all completed.

The sewer is not ready yet for operation because some of the control equipment is going to have to be replaced. It had been scheduled for completion in May of this year. It was completed, but is not yet operating, but we think in another two weeks there should be no more problems with it.

So, half of the plant approximately in the quantity or volume of sewage that comes in the north end complex will begin to treat, we think, in another two weeks.

The sewage from the south complex, the Monroe Street and South Omaha sewers, will not be treated until some arrangement is made for handling paunch manure, for the reason that we cannot take it through the plant.

The program that we have now, and that has been outlined before, is to remove the paunch manure at the plant by sedimentation, settling and conveying it, drying it, and incinerating it.

We now have under way a study and preliminary planning for such a facility, and we expect in another thirty days or so to have something considerably more definitive than we are able to present today, which will include more realistic costs than we have been given up to this time.

In about another thirty days or so, and I am ready to be corrected by the consultants, we should have that report ready, and if the Council is then prepared to act, and I am sure they are after listening to Mr. Trustin, we should be able to go into the working drawing stage, and from there, of course, allowing say six months or so for that stage, go into construction which we had previously estimated at 18 months, which gets me back about to the

December, 1966 figure which I gave earlier, with a possible improvement of thirty to sixty days on that.

If you want any speculation as to what is going to happen, I will be glad to offer the representatives of the consultants, Henningson, Durham & Richardson, at this point.

They will be and I will be glad to answer any questions you may have.

MR. STEIN: Are there any questions?

MR. JOHNSON: I was wondering about this. The report here on my table says it is completed. Yet you say it is not in operation.

Why?

COLONEL SUMNER: Because, as I said, some control equipment on the pumping station, which is a large pumping station that puts the line under pressure from north of Dodge Street, turned out to be inadequately sized, and is now being replaced. It actually has been received and is being installed at this time. It is just one of the bugs that we ran into.

Of course, we ran into others. When we put the line under pressure, we had to repair some leaks, and that took several weeks, and then we ran into this situation. The pumps at the pumping station just wouldn't operate without overheating, so we are having it corrected.

There may be other problems, of course. We don't anticipate any now, but that is the only reason. Everything is right in, but we just can't get the sewage to the plant until we correct this control mechanism.

MR. SAMSON: Colonel Sumner, I believe the treatment plant itself has been ready and has been in a position for operation since August of last year; isn't that right?

COLONEL SUMNER: I would say approximately so. There have been corrections that had to be made.

MR. SAMSON: Minor corrections?

COLONEL SUMNER: Yes.

MR. SAMSON: Another matter that I would like to bring out was, I believe you testified in front of the Nebraska Water Pollution Control Council that to your knowledge there was no facility such as is proposed at this treatment plant for the handling of paunch manure any place in operation in the United States.

Isn't that what you testified to?

COLONEL SUMNER: I know of no plant that incinerates it. I have, since that time, visited the South St. Paul plant where it is successfully removed but piled up around the plant.

Obviously, we couldn't do that here, and we would have to dispose of it by hauling or by incineration, and we certainly don't want to get into the business of hauling

300 tons of wet paunch manure.

MR. SAMSON: Is their load up there as heavy, Colonel Sumner, as it is here?

COLONEL SUMNER: No, sir, the load there is not as heavy. I wouldn't want to give a figure, but I will. I think it may be close to half.

Would that be right, Paul? It wouldn't be quite half as much.

MR. SAMSON: Why don't they incinerate up there? Do you have any idea?

COLONEL SUMNER: That would be speculation on my part. I don't know.

MR. SAMSON: We are all speculating a little bit, so why don't you just go ahead and speculate with us?

COLONEL SUMNER: It is piled up there, and we can't pile it up here. That is what they are doing.

I understood, in talking with them, they did originally try to run it through the plant, but they quit after the first day. It just wouldn't go.

MR. STEIN: Off the record.

(Discussion off the record.)

MR. STEIN: All right, back on the record.

MR. SAMSON: Colonel, there was another thing that I wanted to clear up for the purpose of the record, and that was this: This proposed study is actually the construction of a pilot plant, or is it otherwise?

COLONEL SUMNER: Well, no, that wouldn't be my definition, because it has got to work.

It would be a pilot plant if it is the only one in the country, but what we have or are planning now, and we see no reason why it shouldn't be completely successful, is what we have described, a plant to remove and incinerate the waste.

MR. SAMSON: Thank you very much. That is all I have, Mr. Chairman.

MR. STEIN: Are there any other comments or questions here?

Mr. Clare.

MR. CLARE: Colonel Sumner, as I understand it, the Monroe Street and South Omaha sewer serve essentially all of the packing industry.

COLONEL SUMNER: Yes.

MR. CLARE: In Omaha.

COLONEL SUMNER: Yes.

MR. CLARE: And it is proposed that the waste from the plant through these sewers be intercepted and taken to the south inlet of the plant.

Now, I would like to have clarified the relation between the capacity of the interceptor and the capacity of the two sewers? In other words, the dry weather flow, as I understand it, would all be taken to the treatment plant for treatment. This is the proposed plant, but how about the wet weather flow, and what would happen during periods of storms?

COLONEL SUMNER: In our present stage, it would go into the river.

I would like to call on, if I may, a representative of Henningson, Durham & Richardson as to what their latest thinking on that is.

MR. STEIN: This may be a key question. I wonder if we could hold that until the engineers come up, and see if we can ask you the questions at this point, Colonel.

COLONEL SUMNER: All right.

MR. STEIN: Are there any questions from anyone else?

(There was no response.)

MR. STEIN: I have a few here. I know Mr. Trustin has left, but maybe you can answer them.

As I understood you to say, you did not have a definitive cost estimate on this yet, but this would be ready in perhaps a month or so?

COLONEL SUMNER: That's right. We do have an estimate, but that was made sometime ago and it was a very general estimate of about $1,600,000.

MR. STEIN: Do you think it will be in the ballpark?

COLONEL SUMNER: Yes.

MR. STEIN: The reason I ask the question is: If the City Council has said they are going to pay for this without going to a bond issue, and we don't know what the cost it, I know the City Council hasn't signed a blank check, but I do think that the people are going to read the record and this needs an opportunity, I think, for clarification.

COLONEL SUMNER: I think it won't be any more than that.

MR. STEIN: As I understand it, the paunch manure will be created centrally at one place?

COLONEL SUMNER: It will be removed and disposed of --

MR. STEIN: How does it get from the plant to where it is going to be treated?

COLONEL SUMNER: Through the sewers.

MR. STEIN: There are about how many sources of this paunch manure, if you can give me an estimate?

COLONEL SUMNER: How many plants?

MR. STEIN: Yes.

COLONEL SUMNER: There are nineteen, I believe.

MR. STEIN: Nineteen. Again, and I just want this for clarification, by the way, as I understand this, what you are going to do is to put paunch manure into the sewer, you are going to have to wet it down and kind of get it in a liquid state to move, then take it somewhere, dry it off again, and then treat it?

COLONEL SUMNER: Yes.

MR. STEIN: And this is more reasonable than keeping the water out from the beginning?

Again, I am speaking here as a non-engineer in this operation.

COLONEL SUMNER: Well, I might agree with you very quickly. In fact, I did when I first came here, and pressed very strongly for the original program, the in-plant cleanup and the disposal by the plants and the hauling and land filling, but after further consideration, particularly of the trucks moving through very crowded areas, and a great problem with land fill, and just the entire operation, plus the fact that it costs more on an overall basis, regardless of who pays for it, it would be more expensive for it to be handled individually by the packers than it will be to be handled centrally.

MR. STEIN: If it is trucked away, it could be incinerated as an alternative; isn't that true? You don't have to use it for land fill.

COLONEL SUMNER: Yes, we made that study, but it still has to be trucked to the incinerator, and, of course, you have to pay for the incinerator.

MR. STEIN: Again let me go off the record for a moment here.

(Discussion off the record.)

MR. STEIN: On the record, I have just a few more questions on dates, and this is all just for clarification.

As I understand it, you said it would take about eighteen months to build this, and again, to see if my dates are right, with it being completed in December, 1966, would not this mean that construction would not begin until July, 1965?

COLONEL SUMNER: Well, you recognize though that these are very tentative and somewhat protective. We would, of course, strive to do better.

MR. STEIN: You will try to do better, I know, but I think this is a problem that the conferees are going to have to face.

I think we all have to face up realistically to the fact that whatever method is going to be used will be beyond the original schedule established in 1957. We want to obviously give every benefit of the doubt on this, but, as I understand it the way you have indicated, we are still about a year away from now before you begin throwing dirt.

COLONEL SUMNER: Well, somewhat less.

MR. STEIN: Somewhat less. Now, generally speaking, as I understand it, and maybe I am mistaken on this, there may be a reason, but as a rule of thumb, getting up the detailed plans and specifications takes about as long as the construction period, and here you are going to cut it considerably less.

COLONEL SUMNER: Well, you see, we have been working on the preliminary planning for several weeks already, so on that basis we still have a year for planning. A lot of the tests have been made that would be required in the planning.

MR. STEIN: Maybe you are not the one to answer this, but I want to nail this point down.

You don't see any problem with your coming up with more definitive cost figures, with the representation of the City Council that they have arranged for financing? This won't create a problem?

COLONEL SUMNER: That is quite a broad question to answer.

We expect to do it.

MR. STEIN: As I have said, let's try to reason together and clarify this.

If we have a statement, and I am sure this will work, that financing has been arranged in an arrangement between the packers and the City Council, the City Council will do this financing by not going to the voters.

COLONEL SUMNER: Yes.

MR. STEIN: This is a reasonable plan.

COLONEL SUMNER: Right.

MR. STEIN: The thing is that obviously the completed bill has not been given to the City Council yet because definitive costs have not been arrived at.

I take it you would think that your estimates are such that when the definitive costs are represented or given to the City Council, that the City Council won't be surprised?

COLONEL SUMNER: The City Council had agreed to put it on the ballot at a cost of two million, if we came up with nothing more realistic than that, so I don't see that they will --

MR. STEIN: But the point that Mr. Trustin made was that you were not going to the ballot.

COLONEL SUMNER: That's right.

MR. STEIN: In other words, the assumption is to pay it from city funds would be that this would cost considerably less than two million?

COLONEL SUMNER: No, sir, I don't think that is the assumption. I think if they were willing to put it on the ballot at two million, they will certainly be willing to do it this way at two million.

The whole question there is which way to do it, and they apparently have solved that.

MR. STEIN: You don't anticipate any difficulty at all when you come up with your definitive cost figures with the City Council in view of the statement made today?

COLONEL SUMNER: No, I don't. We have had some difficulties, but they are all resolved.

MR. STEIN: This is all we wanted.

Did you have something, Mr. Clare?

MR. CLARE: I would like to come back to your misgivings about the use of the land fill and specifically hauling the waste through the streets.

I say this not facetiously, but I think I should call your attention to the fact that the conferees may be interested in seeing that this paunch manure is not dumped into the thoroughfare of the heart of America. In other words, this is something that they should be concerned about also. In other words, the Missouri River.

COLONEL SUMNER: Yes.

MR. SAMSON: Are you through?

MR. CLARE: Yes.

MR. SAMSON: As I understand it, the proposal is now lying on the desk of one of the attorneys in the Legal Department?

COLONEL SUMNER: That was a statement I heard, yes.

MR. SAMSON: I thought that was what I heard this morning.

COLONEL SUMNER: Yes.

MR. SAMSON: Would it be possible to get the attorney who is handling that over here to give us his idea as to the legality of the contract, as to whether he will approve it or not approve it?

COLONEL SUMNER: I am sure that that has all been gone into very thoroughly, and I have reviewed it myself.

Mr. Holland here may have some clearer idea of exactly the status.

MR. SAMSON: Fine.

COLONEL SUMNER: But I don't think there is any problem there.

MR. SAMSON: When do you anticipate, Colonel, that there will be formal action by the City Council on the proposal -- I mean, on the contract?

COLONEL SUMNER: I don't know. I don't know what the plan is at all in presenting that feature of it. It may be that they plan to consider it together with the other. I couldn't answer that.

MR. STEIN: As I understood this, and I hope I am not confused now, from Mr. Trustin's statement this morning I assumed that there wasn't really a substantial question of legality of the contract between the packing houses and the city, and this was just a question of processing this through.

Now I don't understand, or do I, from Mr. Samson's inquiry that there might be a substantive question of whether you can enter into the contract?

COLONEL SUMNER: No, I don't think that is so. It was just a question of getting down in writing the agreement that had been reached in meetings.

I was present at the meetings, so I know about that.

MR. SAMSON: Colonel Sumner, did you endeavor at the South Omaha Treatment Plant to run this discharge from the industry through the treatment plant?

COLONEL SUMNER: Purely by accident, we did.

MR. SAMSON: What were the results?

COLONEL SUMNER: It tends to cake in the lines, and we spent quite some time in getting it out again. It is rather like cement, and we found in talking to the South St. Paul Treatment Plant superintendent that he had had precisely the same experience when he tried it.

The stuff just clings to the pipe, and the liquid effluent runs on through, but the other stuff doesn't.

MR. STEIN: Colonel, I would like to take a minute.

Off the record.

(Discussion off the record.)

MR. STEIN: Back on the record.

MR. SMITH: Colonel Sumner, I have a question.

I want to be sure in my mind about the disposal of this paunch manure. Did I understand that you would continue to put this in the river until 1966?

COLONEL SUMNER: Yes, sir, that is so.

MR. SMITH: It will be 1966 before it is removed?

MR. STEIN: The point is this, and I think this question, Mr. Smith, can be raised with the engineers, that even if this plant is built, the question here is during storm water overflows what the effect on the river will be, whether there will be paunch manure that will keep going into the river with this plant after 1966.

Are there any further comments or questions?

(There was no response.)

MR. STEIN: If not, thank you very much, Colonel. You have been very helpful and informative.

COLONEL SUMNER: Thank you.

MR. STEIN: It has been suggested, and I can heartily agree with this, that we recess for lunch.

We will reconvene at half past one, if that is agreeable with you.

I do think that the conference is proceeding well, and, for you people who are not familiar with these things, the fun comes later when we try to get to an agreement, so don't go away.

All right. We will stand recessed until 1:30 this afternoon.

(Whereupon, a luncheon recess was taken.)

AFTERNOON SESSION

MR. STEIN: May we reconvene?

In order to accommodate our schedules, at this point we will call on Mr. Jack Smith of Missouri.

Mr. Smith.

MR. SMITH: Mr. Stein, members of the conference, and ladies and gentlemen:

I would like to call at this time Mayor Arthur Meers, Mayor of St. Joseph. We have a meeting to make tonight, and he would like to be heard at this time.

So, Mayor Meers, will you come forward, please?

STATEMENT OF ARTHUR J. MEERS,
MAYOR, CITY OF ST. JOSEPH,
MISSOURI

MR. MEERS: Good afternoon, and thank you for calling me, I suppose, out of order.

I am not sure what I am supposed to bring to this conference here, but I will try to be as much to the point as I possibly can.

Number 1. I think we should start out with a purpose, and I would agree that our purpose is to provide the best quality water for municipal, industrial, recreation, and perhaps power and navigational use.

I think my first point or my prime purpose for being here was to determine or to state that the water was being polluted at St. Joseph. The water company, for instance, is bothered by oil and grease at their intake locations there in the city.

Also, the commercial fishermen have objected to the pollution of the river, and I think as far as the factual information, this is what my prime purpose for being here today was.

However, as I listened to some of the comments and things that were said here, I think perhaps to help you gentlemen in your deliberations I should give you a brief history of some of the things that have taken place in St. Joseph.

Number 1. We were a city that was faced with court action on the part of the Federal Government, and I might say that the opponent at that time used this terminology or this phrase, that the Federal Government was "blackjacking" the people there to pass this bond issue.

Now, actually, if this were true, the local officials would be the wielders of that blackjack, because we were the ones that were carrying the fight and trying to get this bond issue passed.

So it is through the efforts and the laws that we have there and our actions that we have enforced the anti-pollution laws and ordinances.

I noticed here this morning that the President of the City Council here at Omaha stated that Omaha was going to provide what we call the inplant treatment for the industries here in Omaha.

Actually, Omaha or the people of Omaha are in a much better physical position than the people of St. Joseph. It was our determination that the industries located in the St. Joseph area would have to do the inplant treatment before it was released into the municipal treatment plant. In other words, the people of St. Joseph were not able to subsidize the industries to the effect of pre-treatment.

At the present time, I might give you a brief history of what we have in St. Joseph. We have two treatment plants together with some stabilizations. One of these treatment plants is located and takes care of the industries located just south, and I might add this was the livestock industry, and some of these plants located there have their treatment plants. Then the municipal treatment plant, which is under construction at the present time, will also accommodate two livestock companies.

It is our purpose at the present time that these packing companies will provide inplant treatment -- in other words, remove the paunch material before it goes into the municipal plant, and our thinking on that is that it will reduce the total facility required to accommodate this total pollution.

I might add that I think we were all guilty of this. In promoting the treatment of pollution, we were guilty of not adequately thinking to solve the total problem.

I think when we started and promoted a bond issue, that we said that we would take care of the pollution of that area, the total pollution of that area, and now we find that our thinking was not in accordance and would not take care of this pollution, so we have, in fact, gone to some flagrant violators and asked them to pre-treat or to take out of the total pollution that portion so that our plant would be large enough to facilitate the treatment that would be required, and we have been fortunate enough to do this by contacting the packers and asking them to remove the paunch material and some of the grease and these solids.

We have been able to sell these large companies on this program, because this waste is of value and they have been able to offset the costs of treatment by selling the waste materials.

So, we again have tried to solve our total problem by agreement or through cooperation with our industries, and, as I said before, the packers here in Omaha are in an enviable position in that they have gotten the people to subsidize their treatment, and the people here are fortunate enough to be able to have the money to accommodate them.

Quite frankly, this puts us in a less desirable position, our packers, compared to the packers located here in Omaha.

I believe that is all that I have, but I would gladly answer any questions.

MR. STEIN: Thank you. Are there any comments or questions?

MR. SMITH: I have no question. I have a statement from Missouri when the time is appropriate.

MR. STEIN: Are there any questions or comments here?

MR. SAMSON: I have a couple of inquiries.

Mr. Mayor, we sure appreciate your coming up here and giving us the benefit of your thinking on what you have done in Missouri.

I was in St. Joseph. I was all through that hearing and was quite familiar with it.

Now, how did you work out your problem with the packing industry?

I think Mr. Brown at that time was the attorney who represented pretty much all the packers down there. Did you go directly to the packers then after you had gotten the preliminary work out of the way, and relate to them what your problem was on the paunch manure, grease and those suspended solids?

MR. MEERS: I am glad you brought that up, because I didn't quite define the entire question as it progressed.

In the beginning, when we discussed our problem, it was determined that those industries located just outside of the city --

MR. SAMSON: That is south of the town?

MR. MEERS: South of the town.

MR. SAMSON: Yes.

MR. MEERS: -- would approximately pollute the river in similar quantities as the entire rest of the city, so we negotiated with those interests in trying to build a combined plant.

MR. SAMSON: There was some thinking, wasn't there, also about setting up a separate sanitary treatment district out there, so that they would qualify for the grants under the Public Law 660 in Washington?

MR. MEERS: Right.

MR. SAMSON: Isn't that right?

MR. MEERS: Yes, and they did this. I am trying to follow it through to give you a history of it.

The negotiations were carried on. I am not sure of the total cost at the present time, but I remember the figures. We offered them the joint solution for $110,000 -- they offered us $110,000. We held out for $1,250,000, and the packers then decided that they would solve their problems themselves and form a separate sewer and treatment plant and a separate subdivision.

So they constructed their treatment plant facilities, and it is working at the present time. They city has its treatment plant under construction at the present time, and it will be probably about a year before we have it in complete operation.

But I might add that at the time we negotiated, we needed again $1,250,000. Well, the costs that they have spent so far amount to $1,750,000, $500,000 being in the form of the Federal grant under 660, and so, actually, it has resulted in an economic loss for the total area.

Had we been awarded the two grants, the combined treatment facility plus their going to pay the costs of maintenance and operation of this treatment plant for the next twenty years, we were in turn going to pay for the total operation under the combined treatment of the total plant.

So, actually it is an economic loss to those industries and it is an economic loss to the area, but -- did I get too far afield?

MR. STEIN: No.

MR. SAMSON: That is all right. That is what I would like to know.

MR. STEIN: I think you're doing just fine.

MR. MEERS: What we should do and what should be done is that the promotion of these combined treatment plants should be promoted at every opportunity.

The thought in that particular instance is that by having the two separate facilities, as a result it means a total economic loss.

Quite frankly, I feel sorry for the man who is operating this treatment plant, in that he has to go to these packers, and I think there are five, being conscious that they are his bosses, and tell them they have to do some inplant treatment, removing the paunch material, and if you allow the paunch material to go into the sewers, then you have to enlarge your facilities.

MR. SAMSON: So how are they handling their paunch manure and solids?

MR. MEERS: I am not sure about the plant outside the city, but with the two packers that are located inside the city, we have instructed them that they will have to remove these paunches.

One has at the present time removed the paunches from going into the sewers. I am not sure what the reduction of the materials is, but I think that Jack has that, the reduction.

In practically all industries we have inplant control at the present time.

MR. SAMSON: That answers my question. Thank you very much.

We are glad you came up, Mayor.

MR. STEIN: Are there any further questions?

Mr. Sutton.

MR. SUTTON: Did I understand you to say correctly that the packing house people at St. Joseph were collecting and selling their paunch manure, or was it other industrial waste that they were collecting and selling?

MR. MEERS: Are they selling the paunch manure? They are not selling it at the present time. They are collecting it though, and removing it from the system.

MR. SUTTON: But you are collecting some other wastes and cleaning it?

MR. MEERS: Yes. The brewery is collecting and drying and selling their waste as hog feed material.

MR. JOHNSON: Are any of the packers recovering anything that is saleable?

MR. YOUNG: Yes.

MR. MEERS: Yes. Mr. Charles Young. He will be the head of the treatment facilities. At the present time, he is with the Health Department.

MR. STEIN: Are any of the packers recovering anything that is saleable? What is your answer?

MR. YOUNG: Yes, sir, they are.

MR. STEIN: What are they recovering?

MR. YOUNG: Well, mostly the greases.

MR. STEIN: Mostly the greases?

MR. YOUNG: Yes.

MR. STEIN: Why don't they wait at the sewage outfall and skim it off? Are the scavengers still working?

MR. SAMSON: I don't know.

MR. STEIN: Mr. Clare?

MR. CLARE: Mayor, I realize that this industrial plant is not your municipal plant, but could you tell us when it was placed in operation? Do you know this?

MR. MEERS: I believe it was last fall, about October or November.

MR. STEIN: Mr. Mayor, if no one else has any questions, you have made some very interesting comments, and I think you put into a real spotlight this whole problem of Federal-state relations.

I can sympathize with you very much in the notion, and where you have your problem, of not being able to afford to, and I think I am using your words, subsidize the packers. If the city here feels that they could subsidize the packers, again using your words, they feel they could have a more favorable climate for industry.

As I pointed out earlier, in the Federal Government we have no interest as to how this is financed, as long as it is done. This may be a local problem, and I think Mayor Meers has pointed this up.

Either this is going to be financed by private funds, as it has been done in St. Joseph, Missouri, where the packing houses are going to pay for it, or else the city is going to pay for it from public funds.

Obviously, if you are going to do this with public funds, I have no doubt that you are probably going to have a more favorable climate for industry.

As far as we are concerned, under the scope of our law and our jurisdiction, this is not a Federal concern. This is properly a state and a local concern, and this is what the people here have to consider.

All we are concerned with is that there is adequate financing.

MR. MEERS: I agree with your remarks entirely, Mr. Stein.

There is one thing I would like to leave with the people here in evaluating the problem, and that is that the cost of treatment after the paunch material, for instance, is dumped into the sewer we have found is much greater than removal of the paunch material prior to dumping it into the sewer.

MR. STEIN: Yes, I think we will get at that.

Again, to put this out, this poses a question. The plant, as far as I know, as proposed by Omaha is the first one of its type. However, they are going to incinerate separately.

The point is with the central operation, we have no notion on that. If Omaha wants to be an experimental operation or a guinea pig, let them try that, but it seems, as the Mayor has pointed out, that generally speaking, from the point of view of public funds, it has generally be considered more economical to treat the waste at the source and keep this out.

Now, I say this, and I say this on the record: From a national point of view, if any community like Omaha wants to expend public funds and indulge in a tremendous experiment to treat paunch manure separately and think they can do it as cheaply as they can, and I hope they can, but if they can't they are going to have to treat.

If they can do this experiment themselves and want to experiment for the rest of the country, I think this is the kind of thing that we recognize in state and local initiative on the Federal level. As long as you people want to spend your own money in doing this, we are delighted to have these experiments go forward.

It just might work.

MR. MEERS: Thank you for your time.

MR. STEIN: Thank you.

Mr. Sutton.

MR. SUTTON: Well, we would like to call Colonel Sumner back to the stand, and you can continue yourself, Colonel, or else you can direct whoever you would like to testify for the City of Omaha.

CONTINUED STATEMENT OF COLONEL GEORGE B. SUMNER, DIRECTOR OF PUBLIC WORKS, CITY OF OMAHA, NEBRASKA

COLONEL SUMNER: I may clear up one point at this time that I didn't clear up this morning.

We are not talking only about paunch manure. The other products, grease and blood particularly, are to be removed at the individual plants. That is understood by the packing houses.

The only thing we are proposing for that type of waste in a treatment plant is the paunch manure.

MR. STEIN: You mean the blood is going to be removed?

COLONEL SUMNER: Removed, and is being removed largely now.

MR. STEIN: How about the entrails and the guts?

You know, when we had the first cases here, we had numerous pictures of bladders, lungs and feet going down the river. I assume that is going to be kept out someplace?

COLONEL SUMNER: That is the understanding, that's right. We have written the packers, and they are in agreement that that type of waste will not be put in the sewer.

MR. STEIN: Will not be discharged to the sewers?

COLONEL SUMNER: That is right.

Now, for a further description of what we propose, I would like to ask Mr. Paul Bolton of Henningson, Durham & Richardson to give you some more detail than I have been able to with respect to exactly where we are and what we have in mind.

MR. SAMSON: Colonel, before you leave, I have a couple of questions that come to my mind, and probably the longer we sit here the more questions I will have. I won't make it unreasonable, however.

What is the cost of this South Omaha treatment plant?

COLONEL SUMNER: The plant itself is about seven million. That does not include the Monroe Street twin line, which is a separate contract.

MR. SAMSON: And how much is that?

COLONEL SUMNER: About a million and a half, if my memory is correct.

MR. SAMSON: Has that been paid for in full?

COLONEL SUMNER: Approximately. We are down to about three percent, I think.

MR. SAMSON: Well, in other words, about $1,200,000 has been paid?

COLONEL SUMNER: Well, I can't guarantee the figure, but it is approximately paid in full.

MR. SAMSON: And the treatment plant, what is the cost of that?

COLONEL SUMNER: Again, I am having to use my memory rather freely here. Around seven million, and that has been paid for down to, I think, three percent.

MR. SAMSON: What is the cost of the interceptor?

COLONEL SUMNER: The south interceptor, the one that has just been completed, is around $6,200,000. The total job from Mormon Bridge to Monroe Street, including the plant, is around twenty million.

MR. SAMSON: Twenty million dollars, and how much of that has been paid?

COLONEL SUMNER: Very close to all of it.

MR. SAMSON: The twenty million dollars?

COLONEL SUMNER: Yes, sir.

MR. SAMSON: Those payments have been made over the past year?

COLONEL SUMNER: Well, since 1958. This thing started in 1958, I am informed.

MR. SAMSON: Is any part of that facility involving the twenty million dollars in operation?

COLONEL SUMNER: No, sir.

MR. SAMSON: What is the rate of interest that you are paying on that twenty million dollars, on the facility which is not in operation?

COLONEL SUMNER: I think around three percent.

MR. SAMSON: Three percent?

COLONEL SUMNER: There again I am just giving you approximations.

MR. SAMSON: In other words, there is interest of approximately three percent being paid on a twenty million dollar investment which has been expended over a period of years, since 1958, which is not yet in operation?

COLONEL SUMNER: That's right, but you realize that we are probably within two weeks of operating a good part of it.

Let me qualify this in another way. The north interceptor which terminates at Gray Street has been in operation. It has been dumping raw sewage in the river at Gray Street, but pulling it down so that it did not contaminate the river north of there.

MR. SAMSON: That is the Council Bluffs intake.

COLONEL SUMNER: So we have benefited, and they have benefited.

MR. SAMSON: They have benefited, but Omaha hasn't benefited.

COLONEL SUMNER: Well, Omaha probably isn't benefited, but the river is, and that is the whole purpose of it, I believe.

MR. SAMSON: Do you have your slide rule with you, Colonel?

COLONEL SUMNER: No, sir, I do not.

MR. SAMSON: Well, what is three percent of twenty million dollars?

COLONEL SUMNER: That one should be fairly easy. I would make it $60,000.

MR. SAMSON: $60,000?

COLONEL SUMNER: $600,000.

MR. SAMSON: $600,000. Over what period of years has that $600,000 been paid?

COLONEL SUMNER: Well, not so very long. We paid a good bit of the plant this last year and part of this year. The south interceptor has just been under construction since 1962 and completed in May of this year, except for corrections.

The north interceptor, I believe, and this happened before I came here, was probably 1961.

MR. SAMSON: Now, on the Harrison Street plant, I have heard some stories or read something in the paper about there having been a breakdown in connection with the discharge of the effluent from that plant.

What are the facts on that?

COLONEL SUMNER: I don't have the breakdown, but the line coming from one of the packing plants plus a sewer plant has brought in a lot of wastes that are difficult to handle.

We've got to have some means of removing that and land filling it, and we do have plans for that.

MR. SAMSON: And how long has that problem existed down there?

COLONEL SUMNER: To my knowledge, two years or more. Maybe longer than that.

MR. SAMSON: I have nothing further, Colonel. Thank you very much.

MR. STEIN: Thank you.

Are there any further comments or questions?

(There was no response.)

MR. STEIN: If not, Mr. Sutton, do you want to call Mr. Bolton?

MR. SUTTON: Yes. We will call Paul Bolton.

STATEMENT OF PAUL BOLTON,
HENNINGSON, DURHAM & RICHARDSON,
INC., OMAHA, NEBRASKA

MR. BOLTON: Mr. Chairman, Mr. Sutton, Conferees, Ladies and Gentlemen:

I will try and answer any of the questions that you wish me to. I will start out by giving you a description of the procedure we have studied.

Let me start out by saying that all of the studies in Omaha from the inception of the treatment plant in 1957, and even before that, have been based on the parameters laid down on the main stem in the Missouri by the Five-State Agreement bordering the main stem, plus the Public Health Service.

Each study was to have been made, and there have been various made, within the parameters.

To bring it down to the study under way right now, we expect to remove the paunch manure at the south inlet of the plant by settling. As you have heard before, it is readily settleable. It drops very rapidly. That is one of the reasons it is hard to handle. It will be removed, and the minute we start removing it we will start dewatering it for incineration. It will be able to be settled and removed.

There are two plants doing it now, and now you have heard of the third one. We have studied those, and it looks very feasible that we can remove the paunch manure.

MR. STEIN: Paul, if it drops very readily, doesn't it drop to the bottom of that combined sewer and rest there, and wait until you get a storm, and then all flush out?

MR. BOLTON: It depends on the velocity, but the sewers in Omaha carrying the packing house load, the ones we have studied, which are the main outfall sewers, are well above the velocity necessary, and we have had no evidence of dropping out of the sewer itself.

MR. STEIN: You haven't?

MR. BOLTON: No.

MR. STEIN: It has been our experience that you always have a residue of this stuff, particularly the material that drops out very fast, and it isn't just the stuff that bypasses the storm water overflow, but the stuff that results as an accretion during dry weather flow, and when you get a storm, it cleans out the sewer and cleans up the mess that is piled up on the bottom for a month.

MR. BOLTON: I have seen that too, and it all depends on the slope of the sewer at your depth of flow.

MR. STEIN: But if we have a material that is dropping out pretty fast, hasn't that a propensity to load at the bottom of the sewer?

MR. BOLTON: It all depends on the velocity and the depth of flow.

MR. STEIN: What do you think?

MR. BOLTON: The reason I say that is this -- I will go ahead, Mr. Stein.

MR. STEIN: Go ahead.

MR. BOLTON: The main carrying the main load is, as I recall it, 2.38 percent.

To give you an idea of the velocity in the sewer, we had built about a 4,000 parshall flume to measure. It would shake that flume like it was a shingle, and we had to break it in order to hold even that much weight on the lifter spoon.

On the South Omaha sewer, which is the north one of the plant, we went up above the flat slope, Mr. Stein, and cut into the thirteen foot diameter barrel before it comes into the two by eight box, so that we could divert it, and we are now down between the thirteen foot barrel and the river. You can see where we are cutting in on the high velocity purpose.

If you want to pin me down on every section of the sewer back up to the packing houses, every packing house, I couldn't answer that. They are all lying on the north bluff and the south bluff coming down into one sewer, the Railroad Avenue Sewer, which, of course, is designated.

Does that partially answer your question?

MR. STEIN: Yes. Do you have any additional statement?

MR. BOLTON: Not unless you have a question.

MR. STEIN: I wonder if we could handle this in this way --

MR. BOLTON: Yes.

MR. STEIN: If we can handle it this way, rather than my going through a series of technical questions. I wonder if we could call on our technical coordinator to ask you some questions with me.

MR. BOLTON: I'm at your pleasure.

MR. STEIN: To save some time.

MR. BOLTON: Surely.

MR. STEIN: And I think the rapport between you and he may help, and you can tell some of these terms, and I think the people in the audience will recognize this, this question of the barrel sewer, the square sewer, and so forth and so on, that Mr. Bolton tosses off so expertly.

By the way, in his varied career, he used to work with us too. We know him very well. He is really an expert.

MR. BOLTON: Thank you.

MR. STEIN: But in order to expedite this and save time, I would appreciate it if we would call on Mr. James Coulter, our Technical Coordinator.

Could you come up to the chair?

MR. BOLTON: Mr. Stein, I will be glad to discuss it with Mr. Coulter.

MR. STEIN: Mr. Coulter, pull up a chair.

Off the record.

(Discussion off the record.)

MR. STEIN: All right, back on the record.

MR. BOLTON: I would like your permission, if we get into some details, to call on some of the other boys back there.

MR. STEIN: Surely.

MR. COULTER: Paul, as I understand the situation, the City of Omaha has its collector system installed, it has the sewage treatment plant substantially completed, ready to go into operation, except for a shakedown period of adjustment in the pumps and the lines and so on to take care of some leaks, and so on.

What we have heard this morning is that the treatment plant can take essentially, on a volumetric basis, about 50 percent of the load that it was designed for, and that until the paunch manure is removed from the sewage that would enter the south end of the sewage treatment plant, that sewage cannot be treated in the plant.

MR. BOLTON: Yes.

MR. STEIN: Let me see if I understand this.

As I understand what was stated before, you spent about twenty million dollars. You have a north interceptor and a south interceptor coming into the plant.

MR. BOLTON: Do you want me to explain it? We have it here. I can explain it here.

MR. STEIN: Herb, isn't this correct?

MR. CLARE: No, not what they call the north interceptor and the south interceptor. I think there is a chart underneath here.

MR. STEIN: The point is that about half of that plant that you have constructed will not be able to be used until the end of 1966; is that correct?

MR. BOLTON: Yes, sir.

MR. STEIN: You know, again I think this is one of the problems we have. We have a facility that is ready to go. We have a facility that is built at considerable expense to the taxpayer, and, by the way, a facility that can keep the Missour River cleaner, which is our concern, and we are faced with a situation where one half of that facility cannot be able to be used until almost 1967.

MR. BOLTON: If I may, Mr. Stein?

MR. STEIN: Yes.

MR. BOLTON: I would like to go into a little operation which will give you the qualifications.

During the nighttime flow at the paunch manure season, we can treat the rest of it.

MR. STEIN: That is right, but the point is, and this is what we may be seeking, that it may not be completely beyond the realm of possibility -- and I will let Mr. Coulter take over -- to have that plant hopefully, since we have it built, run through optimum capacity for 24 hours rather than only at nighttime.

Mr. Coulter?

MR. COULTER: Well, Paul, I am just trying to get the picture as I understand it, so that we will have a common basis of understanding for the engineering colloquy.

MR. BOLTON: Could I take just a minute, Jim, which I think will help on the terminology?

The north interceptor, ladies and gentlemen, comes from Bridge Street down to the Gray Street outlet, which is up towards the airport.

Then what we call the south interceptor starts there and goes down to the north end of the plant. Then we have the Monroe Street interceptor, 42 inch diameter cast iron, actually under pressure to bring it in by gravity. Then we have the South Omaha interceptor, which is a 42 inch diameter, coming into the Jerome Plant station.

You can see what the terminology is, which is critical here.

MR. STEIN: That may help, but let me just state the principle, and I hope you will work it out.

MR. BOLTON: All right.

MR. STEIN: The key point here is we have a plant that is capable as soon as you open it, and I suspect you can open it rather soon, of running 24 hours a day, 365 days a year, removing pollution from the Missouri River.

The way it is situated now, half of that plant will not be operative. In other words, not a wheel will turn, as I understand it, in half that plant during the time the packing houses are operating. They may run at night when the packing houses are shut down.

The people of Omaha, the people of this country, the people of the Missouri River Valley, have a tremendous investment in this.

I think the principle we have to face here and what I would like to do, and I recognize the problem, is try to get, with the existing facility, as much work as we can get out of this plant on a 24-hour basis.

Mr. Coulter?

MR. COULTER: Well, Paul, we have, as I understand it, the Monroe Street sewer and the South Omaha sewer, which now carries sewage and industrial waste. It could go through the sewage treatment plant and be treated, except that the treatment plant was designed in such a way that it would not take the paunch manure. It will take the rest of the waste.

I assume then that everyone at the conference has reached the point where we are all in agreement that the paunch manure, as well as the municipal waste, carried in the sewage should be treated before it is discharged to the Missouri, and it should be treated as soon as possible.

So that we come up then at this point, for the purpose of the conferees, with an examination of the possible alternatives and things that might be done in order to put the capital investment to work and also to get the treated waste into the Missouri River as effectively and as soon as possible.

So, with this setting, there are a number of alternatives which, it seems to me, should be explored.

One of the first alternatives is one that was mentioned this morning. Is it necessary in the packing plant industry that the removal of paunch manure be a wet process? Must the paunch manure inherently leave the packing plants in the water-borne sewage?

Or, is it possible, on an interim basis between now and the end of 1966, or perhaps as a more reasonable alternative for all times, to make the removal of paunch manure a dry process, so that it would never get into the sewage, so that you would never have to take it out at the treatment plant?

I am sure that you must have considered this alternative.

MR. BOLTON: Yes, sir, and I am going to have to evade your question because whether it can or cannot be done is under the rules and the regulations of the Department of Agriculture on interstate commerce.

I didn't mean to pass the buck, gentlemen, but I had to.

I know of one place that it is being done dry, so I presume that they will permit it.

MR. STEIN: The point is, as far as I understand it --

MR. BOLTON: You are talking from a sanitary engineering standpoint, Jim, or regular?

MR. STEIN: From a sanitary engineering standpoint.

MR. BOLTON: From an engineering standpoint, no.

MR. STEIN: Let's see if I can understand this, Paul. I never anticipated this.

Is Mayor Meers still here, or did he leave?

MR. BOLTON: I got involved in these regulations. That is the reason for my answer now.

MR. STEIN: Has he left? Yes.

I had no idea what you were going to say, but Mayor Meers indicated that in St. Joseph they are doing this. They are removing it before it gets into the sewer.

Now, surely you must have had some reason in Omaha for deciding you weren't going to put it in. Mayor Meers suggested -- again, I wish he were here. I don't want to misquote him, and, as I said, I had no previous conversation with him. I don't think I have seen the Mayor for five or six years, until he was up here today. But I think we have a record to correct here, and you have.

He points out that as far as he is concerned, the people of St. Joseph are not in a position to subsidize their packing house industry for their waste disposal with public funds. He points out that you people in Omaha evidently are, and that that puts him at a unique disadvantage in St. Joseph.

Obviously, you must have had some reason to do this other than just a subsidization.

MR. BOLTON: You see, where you made a qualifying statement, you said in a dry form. That is different than flushing it from the table, which some of the packers do, and then immediately collect it in a basin.

MR. STEIN: Yes.

MR. BOLTON: Yes. Now, here is the industry. I know they do it various ways. If they go through a catch basin and they pump it out and screen it, this is the normal period.

You see, I qualified my answer there, because complete dry was mentioned.

MR. STEIN: We are not talking about complete dry. As far as we are concerned, it is treatment before entrance to the sewer.

Again, Paul, I read your article recently in the Scientific Journal before I came out here, and I think it is fair to say that in Omaha you have one of the best consulting engineers in this field in the country. I think Paul's firm is well recognized as that.

MR. BOLTON: Thank you.

MR. STEIN: Here is the point that I have not heard explained.

Your plant design, as far as I can see, through the years has been up to the highest standards of American engineering. When you originally designed this plant, the South Omaha interceptor and the treatment plant, you obviously expected this waste to be kept out. You would not have designed this unless you thought it was feasible.

MR. BOLTON: Yes.

MR. STEIN: Now, just how did this change take place? Why did you decide that this couldn't happen now?

MR. SAMSON: Let me clear up something here.

Paul, do you have with you the report, Interceptor Sewers and Sewage Disposal, City of Omaha, Sewage Treatment, Volumes 1 and 2, 1958? Do you have that?

MR. BOLTON: I do not have Volume 1, sir, on the north interceptor, but I do have Volume 2.

MR. STEIN: Mr. Samson, do you mind if I get an answer?

MR. SAMSON: I will step aside.

MR. BOLTON: I was going to ask the Colonel if he wants me to take it or he wants to take it. That's all I was going to say.

I will take the history of it, if you wish.

MR. STEIN: No. Go ahead, either one.

MR. BOLTON: We first worked closely with the packing industry in the studies starting, I believe, in

1947, running through the major part of the year before we finished the 25 outlets going to the river up and down there.

We worked very closely with the industries in Omaha, worked with their sanitary engineers, and established a program as you see in Volume 2.

There are also some statements in there that were quoted from Volume 2. I am speaking of the original report.

As time proceeded, the industry requested further studies and other approaches. The city agreed to have the further studies made, and they have been made and correlated, and are coming out in this one, to the one we are now planning.

MR. STEIN: You see, this is why I wanted to get Jim up here. I didn't want to push it to this.

Colonel, maybe you want to come up and join Paul.

MR. BOLTON: Thank you, Colonel.

MR. STEIN: Both of you stay there.

By the way, I hope we are trying to put this in terms of answers. This is just in terms of an inquiry. I have known Paul Bolton for many years, and Chuck Durham and the principals in the firm are the highest type of American engineering consultants you can have in the country.

If they designed a plant where the packing house wastes or the solids and paunch manure were not to be treated, they must obviously have had the assumption that there would be a reasonable alternative to remove them before they hit the sewer.

Otherwise, they never, in the professional spirit of good sanitary engineering, would put their names on the plan that this was an adequate treatment works for Omaha.

Where is the switch? If these people could do it, why do we change?

COLONEL SUMNER: Well, maybe I can answer that.

When I came here two and a half years ago, the plan definitely was that this material would be removed at the individual plants, and one of the plants has actually done the construction.

We met with the group of packers and we got into a lot of discussion about it, and out of that discussion there was some more enlightenment as far as we were concerned.

It had never been done the way we planned it elsewhere, but the problem of close to 300 tons a day of this stuff being transported in a rather congested area necessarily, because there was no way to get it out of there, was present, and the transportation problem plus the cost to the individual packers added together would exceed the cost by having a central facility.

That is why the change. I don't think that it was a question of whether or not it could be done another way, but that this was a better way.

MR. STEIN: I am not arguing.

COLONEL SUMNER: Yes.

MR. STEIN: And I would like to have Mr. Coulter point out this point, and I think I alluded to this before.

Sir, as far as I know, there is no other city in the United States taking paunch manure centrally and incinerating it; is that correct?

Now, the point is, you do have a cost estimate. As a matter of fact, from a national point of view, I would be delighted that this work, but the point is if you are the pioneers and you are putting this up, I assume that you are underwriting this and you are going to follow this through until it works.

And you still think, since this has never been done before, that you are going to make an assertion that this is a safe bet and that you think you are going to do it.

What I want to point out is that this is no concern of ours. This is Omaha's money. If you want to underwrite this to keep this stuff out of the river and use this device and pour water into the paunch manure, and then get it down to the sewer, and then get it down to your plant and compress it and get the water out and dry it and burn it, we certainly don't have any objection.

We are a little disturbed about the extension of time, but we don't have an objection about the experiment.

MR. COULTER: Well, the objection does come when we consider that the start of these negotiations was back in 1957, and we will be approaching 1967 before the paunch manure plant is in operation so that the sewage treatment plant can go into operation, and I can see the spectre of some nineteen individual treatment plants with collection from the industries at the industries, transportation to either a central dump or -- excuse me; sanitary land fill -- or to an incinerator, and a central incinerator or plant would have its costs and its problems, and that a reconsideration of this situation might lead you to believe that another system, water carriage, separation at a central place, dewatering and incineration, would have advantages.

But there must be some alternatives that we could take here in the period between now and 1967 which would result in removal of the paunch manure from the wastes coming from the packing plants, and permit the capital investment in the sewage treatment plant to become operative at this time rather than in the latter part of 1966.

MR. STEIN: Let's say that is 1967, for all intents and purposes.

MR. COULTER: Because we are faced with a two-year period then of not only the paunch manure going into the Missouri River, but all of the municipal and industrial wastes that are carried by that portion of the city's waste.

So, my original question, Paul, was one that got me into the Department of Agriculture somehow, and I really don't understand how, which was why cannot we in this interim two-year period go into some kind of a dry process or separation of these wastes at the packing plants and transportation to sanitary land fills, if this was the original scheme, or some other method of disposal so that the municipal wastes can be treated in the sewage treatment plant, and the paunch manure will be kept out of the river?

MR. BOLTON: Well, I will answer that to the best of my ability, and then ask if some of the packers would like to visit with you about it.

These packers are varied in size. They are processing, and it makes quite a difference in their physical layout, so you can't say that one type will fit the nineteen that come into the Missouri River watershed.

Therefore, now you know why we got into a specific area on this dry. It is quite possible that some of the smaller packers could get by without opening it. You get into the larger ones, and you've got another problem.

Therefore, it would take a discussion of each individual packer and what they could do before we could come out with that answer.

MR. STEIN: Let's see. I have something up here. I don't know if you can see it. This is a very simple diagram.

MR. BOLTON: Yes, sir.

MR. STEIN: As I understand it, you built a big treatment plant here.

MR. BOLTON: Yes, sir.

MR. STEIN: That you figured would be ready, and it is ready now practically, in 1964.

MR. BOLTON: Yes, sir.

MR. STEIN: You figured this on the assumption that this line, these packing house wastes would not get in here. Otherwise, you would not have designed it this way.

MR. BOLTON: That is correct.

MR. STEIN: Now you are telling us that since this packing house waste is coming in, that you didn't anticipate, that half this facility will not go into operation even removing the municipal sewage until 1967.

MR. BOLTON: Maybe I can --

MR. STEIN: Now, I think we are in a very odd position.

MR. BOLTON: Maybe I can answer your question this way, Mr. Stein.

I am going to try and hit it hard and firm, because all during the study, and this starts from the time the initial plans, the initial preliminary reports were made, as the further study progressed, because constantly during the development of design and ready to go into operation consulting firms never quit studying, and, of course, they work for their employers.

As the industry became closer correlated with the city, they requested further studies.

If you want to know if it is a change in plan, it definitely is. It is a change, because the industry and the city became closer together and looked at other methods.

MR. STEIN: No, I am not objecting to the change in plans, Paul. What I am saying is the country has a tremendous capital investment.

MR. BOLTON: Yes, sir.

MR. STEIN: This is the whole resources of our country in the heartland of American streams, in the Missouri and Mississippi Rivers.

In the Omaha waste treatment plant, I just see this for two and a half years -- half that plant lying idle, and I wonder if there isn't some method where we could get that plant working 24 hours a day and doing the job it is supposed to do, the job the taxpayers paid for, the job the country has every right to expect.

MR. COULTER: Paul, again, we can keep this material separated at least for a short period of time while we are getting the plant built that will take it out of the sewage.

You have indicated that several of the small packers might be able to operate by not opening the paunch manure, and therefore not releasing the objectionable material that we are talking about that would get into the sewer.

In the large industries, would it not be possible to change operations, at least on an interim basis here, and go ahead and open the paunch, but to handle it with squeegies or a dry mount, or somehow, so that the materials would not get into the sewage system during this two years or so that we are talking about?

If this is an impossible situation in the processing situation, just say so and knock this in the head, and go on.

MR. BOLTON: The reason I am not answering that question is I hope there are representatives here that can answer you, because each one is an individual.

At one time, two or three years ago, we gave our thinking as we went through the plants, but I don't know what the packers' individual plans are.

With some of the big ones, as I recall, it would probably be pretty difficult. Perhaps not. I wish they were here to answer individually.

MR. COULTER: Well, as a consulting engineer, of course, you were retained to study and consider those things that the city retained you for, but do you know of any kind of study or consideration that has been made in this interim period to somehow handle this problem and get maximum use out of the capital investment that we now have in the sewage treatment plant?

In other words, some kind of interim measures to get the paunch manure out of the sewage, so that it can be passed through the plant?

MR. BOLTON: If you are talking about since we started the new study, I know of none.

That is the reason I am unable to answer your question.

MR. STEIN: All right. Let me ask you this. You know this is an extensive inquiry. I am just speaking personally now. I hate to leave a plant that is ready to operate now, and not put that plant to work to its full capacity if we possibly can.

MR. BOLTON: Well, there are three phases here.

We are talking about the removal. We have the removal and then we have the other, but we are talking about removal here.

MR. STEIN: I think we should use the physical plant, considering the pollution problems that you have here. We should use the physical plants we have to their optimum capacity, 24 hours a day if we can. I think we can all agree on that principle.

By the way, I am not sure this can be worked out, because again I recognize that with packers you might have problems, but it just seems to me that to run a plant just at night after the packing houses closed down, to handle the municipal waste and not try to do something during the day means not using the facility to the optimum.

To a non-technical mind, although us lawyers are generally considered more technical than anyone, but you know I have a relative science background, isn't it at all possible to accept, during the operating day of that plant, as much waste as you can reasonably treat, and possibly, if you have to bypass the rest, bypass it, but don't bypass it all and shut down while the packing houses are open?

I am just posing this. I don't think really this is an impossible task for your engineers to come up with a reasonable solution.

MR. BOLTON: I mentioned the night, but we will take as much as we can.

COLONEL SUMNER: May I confer with Mr. Bolton for a moment off the record?

MR. STEIN: Yes.

(Discussion off the record.)

COLONEL SUMNER: Let me make a statement here.

We did get a small amount of paunch manure from the South Omaha sewer in the early days of testing this plant, and it was a tremendous problem in trying to get it out of the lines after it got in, and I would not like to take any of the paunch manure.

MR. STEIN: You wouldn't like to take any paunch manure at all?

COLONEL SUMNER: That's right.

MR. STEIN: It is impossible for you to take your sanitary wastes while the packing plants are operating 24 hours a day?

MR. BOLTON: I don't want to answer that on my own experience, but it strikes me, from what I have seen and heard, that it would just give us trouble, a lot of trouble.

MR. SAMSON: I have a couple of questions.

MR. BOLTON: Mr. Stein, you want to remember that it is better to bypass and keep it in operation all the time if we can.

MR. SAMSON: Paul, I would like to ask you a couple of questions. Are you tired?

MR. BOLTON: No, sir.

MR. SAMSON: All right. Mr. Bolton, I believe that both you and the Colonel were down at the Water Pollution Control Council, and you both testified that this proposed facility that was under consideration has no counterpart anyplace in America, an operational facility comparable to this problem of South Omaha; is that right?

MR. BOLTON: May I take it in two pieces?

MR. SAMSON: Yes, sure.

MR. BOLTON: The removal is in existence. The incineration, or disposal by incineration is not.

MR. SAMSON: There is no other?

MR. BOLTON: That's right.

MR. SAMSON: Then did you and your firm on May the 12th, 1964 execute a contract with the City of Omaha in connection with an engineering agreement on intestinal contents removal and an incineration plant at the Omaha Missouri River Treatment Plant site? About that time, did you enter into that contract?

MR. BOLTON: Yes, sir.

MR. SAMSON: And that provides for the employment of your firm as a consultant to prepare a pre-design report?

MR. BOLTON: Yes.

MR. SAMSON: I notice that in that contract you refer to a pre-design report, while your contract on the engineering agreement that pertained to the sewage treatment plant improvement, executed on December 5, 1958, provides for your employment as a consultant to design and supervise construction of all work in connection with this general arrangement.

MR. BOLTON: Yes, sir.

MR. SAMSON: Now my question to you is, what is the difference in your terminology? What is the meaning in the difference in your terminology, "to design and supervise" and "to prepare a pre-design and report"?

MR. BOLTON: A pre-design report, Mr. Samson, is a complete study of the applicability of any process, plus the hydraulic profile and the answers to all the questions, except the development of the detailed plans and specifications.

MR. SAMSON: I see, and then that is to study all methods reasonably appropriate for the removal, incineration and installation, determination and advantages and disadvantages -- that is one of the provisions, I believe?

MR. BOLTON: Yes.

MR. SAMSON: And also to determine the suitability of available equipment or its susceptibility to modification, and to develop layout plans, and I think there are several other divisions; is that right?

MR. BOLTON: Yes, sir.

MR. SAMSON: Now, Mr. Bolton, will you state for our benefit whether you could say, based upon reasonable sanitary engineering reliability, that what is proposed generally will successfully operate as far as the problem is concerned, as far as the removal and the treatment of the so-called packing house wastes?

MR. BOLTON: We are into this --

MR. SAMSON: With reasonable engineering certainty.

MR. BOLTON: We are into this study far enough that the removal is probably beyond reasonable certainty.

It has been tried, perfected, and our studies indicate that the separation works. It looks like very reasonable from the standpoint of incineration to date, yes, sir.

MR. SAMSON: My question was, can you state, with reasonable engineering certainty, that the incineration will be successful and will work?

MR. BOLTON: Let me refer that to our incinerator man, if I may. We are working together on this, as you know, Mr. Samson.

MR. SAMSON: You haven't come up with an answer to it yet, I take it?

MR. BOLTON: We are firming it up pretty closely.

MR. STEIN: Will you identify yourself for the purpose of the record, please?

MR. FERGUSON: I am R. F. Ferguson with the firm of Henningson, Durham & Richardson, and my particular responsibility in this pre-design report, of which you have spoken, is the incineration end of it.

I think it can safely be said that we find no reason to doubt the original premise that it can be done, that it can be done successfully and without causing any nuisance in the area.

The exact details have not yet been worked out. This is part of the work that we are undertaking in the report. Unfortunately, the timing of this meeting did not permit our completion of the report in time for your conference here.

Now, the answer to your question is yes, it can be done.

MR. SAMSON: That is your testimony, is that, based upon reasonable sanitary engineering certainty, that incineration would be successful and could be carried on?

MR. FERGUSON: Yes, sir.

MR. SAMSON: At the South Omaha plant?

MR. FERGUSON: Yes, sir, it can be done.

MR. STEIN: Do you have any further questions?

MR. FERGUSON: Costs and details have yet to be refined.

MR. STEIN: That's right.

MR. FERGUSON: Whether it can be done or not, this is no longer a question in our minds.

MR. STEIN: All right. Mr. Bolton, don't run off.

MR. SAMSON: You didn't let me finish with Mr. Bolton.

MR. STEIN: That is why I asked if there were any further questions.

MR. BOLTON: Do you want me?

MR. SAMSON: I would like to ask you a couple of additional questions.

MR. BOLTON: Yes.

MR. SAMSON: Mr. Bolton, do you have with you your Volume 2, reports of 1958 on the Interceptor Sewer and Sewage Disposal, City of Omaha? Do you have that with you?

MR. BOLTON: Volume 2 is back there. Volume 1 is not.

MR. SAMSON: I will just ask you if, in that report to the city at that time, you or your firm made this statement:

> "Since the larger packers have already begun a program of inplant control and waste reclamation, it is recommended that the same procedures of assistance be established with the smaller members of the industry, so that their cleanup programs will parallel the city's program in the installation of treatment."

Am I quoting correctly?

MR. BOLTON: I think so, yes.

MR. SAMSON: And then also in that report to the city of 1958, did you or your firm also say:

> "Some of the packers desire to continue the discharge of paunch manure and intestinal contents to the sewer system; however," -- and this is your

recommendation -- "it is recommended that this be handled by the individual packers, and that the material be screened out and hauled in a semi-dry state to a disposal area in a manner satisfactory to the city and the industry."

MR. BOLTON: Yes, sir.

MR. SAMSON: That is a correct statement?

MR. BOLTON: Yes, sir.

MR. SAMSON: And did you or your firm also in connection with packing industry wastes make this recommendation, or make this comment:

"The Union Stockyards Company of Omaha is one of the largest handlers of livestock in the United States, and the packing industry located in South Omaha the largest in the world. Consequently, as could be expected, this industry is a source of the greatest pollutional load from the metropolitan area, but at the same time many processes within the plant are readily amenable to reduction of losses by reclamation or rigid control without individual establishment."

MR. BOLTON: It sounds like it. I couldn't verify it, Mr. Samson. Could you check that paragraph? If you want us to check it, we will be glad to do it. It has been 1938 since I worked on that. I think it is correct.

MR. SAMSON: Is that essentially correct?

MR. BOLTON: I think so.

MR. SAMSON: Do you still feel that way?

MR. BOLTON: Not necessarily, because of the further studies, combining removal, transportation and disposal.

MR. STEIN: By the way, Mr. Samson must have been reading my mind, because this is the foundation.

So far as I understand, you believed certainly when you wrote these reports that paunch manure, among other things and other solid wastes, could be removed by the packing houses, and should be removed by the packing houses at their site.

You also indicated, and let's see if I am stating this correctly, that the sole reason to put these in the sewers is that it would cost less.

MR. BOLTON: I won't say it is the sole reason.

MR. STEIN: What is the other reason?

MR. BOLTON: Well, the hauling it. I stressed that.

MR. STEIN: You mean the hauling through the streets?

MR. BOLTON: Yes, through the city, and the place to get rid of it.

MR. STEIN: Well, you are talking about incineration. If you are talking about a sanitary land fill or a dump, that is one thing, but if you are going to an incinerator, you are going to have the incinerator at one place or another.

MR. BOLTON: Yes, sir.

MR. STEIN: In other words, it doesn't make a bit of difference really if we are going to get rid of it.

Again, I am trying to narrow it down to the scope of differences, as I see it. Whether we have the incinerator near the sewage treatment plant or the incinerator anywhere else, if we are going to burn it, we are going to have an incinerator.

MR. BOLTON: Right.

MR. STEIN: So the real issue here is cost of hauling through the streets; is that right?

MR. BOLTON: Right.

MR. FERGUSON: Not entirely costs, if I may interrupt, Mr. Stein.

Let me point out that this material, in the condition in which it is at the time it is removed from the animals -- let us say it is undergoing chemical change at that time, and this chemical change does not stop the instant it is removed from the animal. The material when concentrated in a tank truck, let us say -- how else would we carry it -- would still be undergoing chemical change, and on warm days particularly this would be accelerated.

We feel that it is undesirable to carry material in this state in closed containers, and certainly we wouldn't want to carry it in open containers because of the odor problem particularly, and carrying it in closed containers we have the opportunity of bursting a container with quite a nuisance resulting from that.

Remember, sir, that we are working with an industry that is located within the city. It is not outside of the city, as it is in many other cases.

MR. STEIN: I think it was pointed out that the industries that the Mayor was working with were located within the city.

But we assume that this is decomposing and engaging in chemical changes after it is removed from the plant, and we also assume that it may create a nuisance as it is hauled through the streets on a hot day or if a tank burst. I don't know that a tank would burst, but it would seem to me, wouldn't it, that the same kind of material dumped untreated into the Missouri River might create a pollution problem?

MR. FERGUSON: No question about that, sir, that this --

MR. STEIN: This is what we are proposing to do, at least until 1966.

Off the record.

(Discussion off the record.)

MR. STEIN: The question that I want the answer to is why, since the original method was such a good method and would have kept all the paunch manure out of the river, did you switch? This is really the question.

MR. BOLTON: Each case actually, and here I am qualifying it -- each case, in a relationship of the industrial wastes, regardless of the type, to the volume and characteristics of the other sewage, must be given consideration.

Here we have the largest packing industry in the world. We always study further, and further study makes it look like there are other methods of doing it. Each one requires a difference. We speak of a large industry, the packing industry, since we are talking about them, in a small town. That is another story from where you have a packing industry in a larger city, and then you get up to what we have here.

MR. STEIN: But let's zero in on where we are going. As I understand it, it is not the money then.

MR. BOLTON: Partially, yes.

MR. STEIN: It is partly the money and it is partly having the nuisance of driving this stuff through the streets. Is that what I understand?

MR. BOLTON: I believe that is a fair statement.

MR. STEIN: All right. Now, let me ask this: The other alternative here is that if the original plan went through there would be no paunch manure going into the river from now on, and the new Omaha plants would be in operation operating fine.

In other words now, for this esthetic reason, we are going to continue to pour, unabated, all the paunch manure untreated into the river until 1966, to preserve both the money and the asthetic reasons. I think maybe Mr. Coulter will come to that, but we come to this question of what happens when we get storm overflow and drainage.

When you deal with this money, I suggest that we have a problematic business, and I recognize that you are the ones who should experiment, since you are the brand new ones.

The question is we don't know really how much that will cost, since this has never been put in effect before, this incineration after being put into a plant. I might point out that as far as I know, and correct me, gentlemen, if I am wrong, you can burn anything if you want to pay enough money for it. All you have got to do is keep squeezing enough water out and applying enough heat, and you can burn it.

As a matter of fact, one of the methods of purifying water is distilling it. It is a question of cost.

The question here is that this has never been put in operation yet, but the point is who will it save money for? Will it save the taxpayers any money by going to this alternative operation? In other words, you are going to give the people of Omaha less of a bill?

MR. FERGUSON: I don't know whether that question can be answered categorically, Mr. Stein.

MR. STEIN: What?

MR. FERGUSON: Certainly, all costs are eventually borne by the public, whether they be directly assessed by taxation or whether they be carried through increased sale costs of the products which are produced.

MR. STEIN: I could agree with that, sir.

MR. FERGUSON: And therefore the use of a higher cost method of disposal becomes an economic loss to the area eventually, and --

MR. STEIN: Let's see if I understand you on the economics. I am fascinated by this. If this is going to cost one and a half million dollars more, cost to the

City of Omaha, and you say eventually all costs must be borne by the public, this clearly will be borne by the people of the City of Omaha.

If this, however, is put on a product like a meat product which is sold throughout the country, this one and a half million dollar cost will be dispersed throughout the country and borne by the country as a whole.

Now, maybe the people of Omaha want to assume this, but if you say part of the reasons are additional costs, I think the next question comes, additional costs to whom?

MR. BOLTON: I would like to stay out of this area of financing, Mr. Stein, but it is up to you, because, as you know, we can continue it.

MR. STEIN: You gave this as one of the reasons.

MR. BOLTON: Let's take the other side of it. We don't want to lose an industry either. There are those economics which are to be considered.

MR. STEIN: That is right. By the way, I mentioned this in the opening statement.

I have been asking you for the reasons. If your other reason is that you want to create a proper climate for the packing industry -- and I believe with you that you have the biggest packing industry in the world notwithstanding the Russians, and, goodness knows, I hope you keep that way -- if this is one of the points and this is the issue, I think we should recognize it.

MR. FERGUSON: Mr. Stein, let me point out that we, as consulting engineers, do not make that specific choice; that we are working for our client, the City of Omaha, who direct us generally in what direction we shall travel and what we shall do.

Speaking as an individual and not as a consulting engineer working for the city, I would say that I don't believe that there is any particular secret in the fact that Omaha would like to keep the packing industry here in its present size and to increase it, if possible, of course.

MR. STEIN: I think we can agree with that, and I don't think we are going to change it.

By the way, I'm for you. I know and understand what your problem is. But let's assume that you want to create a proper climate for the packing houses. Let's assume that the reason you have gone to putting these solid wastes, including paunch manure, into the sewage instead of getting the industry to cart this away themselves at their own expense, is because you want to maintain Omaha as the biggest packing house center in the country. This is fine. This may be the best municipal investment you people have ever made.

If we assume that, then we can get down to where we are going. Now, the question here is how can we sooner and in the best way make the full use of this facility you built that is ready to go in 1964, and how can we at the soonest keep the maximum amount of paunch manure and other solid packing house wastes out of the river at all times?

MR. FERGUSON: I would just like to comment, Mr. Stein, that I don't believe that if a law were passed today that told the packers that they flatly were not to put this into the sewer, if the fiat were placed in effect as of today, I don't believe that they could comply within 24 hours. There would have to be physical changes made in their setups, in many cases certainly.

Now, I wouldn't say this is a hundred percent true, but certainly to a very large extent. There would have to be work done, expense gone to, and changes in operating methods.

Now, I don't believe that they could --

MR. STEIN: But, sir, I really don't think anyone is suggesting that. We are not suggesting that.

I think we have certain alternatives here, and I think we have to be realistic. The alternative that we were looking to, and we were right, with Paul Bolton and everyone else, was expecting these wastes to be kept out completely in the past. I think the design of the plant that your firm signed its name to and placed its professional reputation on was based on that. I don't think there is any doubt about that.

Now, there were other considerations that came in. What I am saying is, if you go to an alternate method, and you can't have the best of all possible worlds although we would like it, if you want to indulge in this noble experiment of pouring a lot of water in and carrying out this paunch manure and then squeezing that water out again and attempting to burn it, this is fine.

What I am suggesting is, within the scope of this concept, can we conceive of a system where we can get the maximum amount of paunch manure out of the river on an interim basis, and how can we get this plant that you have already completed working 100 percent capacity 100 percent of the time as soon as possible.

Is it a reasonable approach to try this?

MR. BOLTON: We can't answer you, because it will take a study. That is the reason that we quiet down when you start talking about should it be done.

MR. FERGUSON: This is something that could only be answered by the individual packers, really.

MR. COULTER: I wonder if there is someone who is here from the industry who could tell us whether there is a real and practicable interim measure that the conferees could consider, which would result in removal of the paunch manure and result in placing the plant in operation as soon as possible or within a reasonable period of time after it is ready to go.

Is there any way that the paunch manure, even on an interim basis, can be substantially removed from the sewage from the plant?

MR. FERGUSON: You ask is there anyone here who can answer that question, and I think the answer to that portion of your initial question is "No." The packers themselves would have to speak for themselves.

There is an informal grouping of the packers, but it is, to the best of my knowledge, informal only. I do not believe that it has any formal constitution or organization as an entity, as such.

MR. SUTTON: Mr. Stein, there will be a man who will testify for the industry before the hearing is over.

MR. STEIN: All right.

MR. SAMSON: Before Paul leaves, I have just one or two short comments here.

Paul, in this Volume 2 report in 1958, and this goes back to what Mr. Stein was talking to you about, why the switch. You know what I am referring to -- why the switch.

In this report that you or your firm submitted to the city at that time, did you also incorporate in that report the following statement, or substantially the following statement to the City of Omaha:

> "In order to apprise the packing industry of the overall program for the city and the degree of treatment for the City of Omaha as established by the stream pollution and control agencies, which gives consideration to industrial waste reductions, two meetings were held with the packing industry."

Do you recall that statement?

MR. BOLTON: I think so, yes.

MR. SAMSON: And is that substantially correct then?

MR. BOLTON: Yes. We ended up with more, but yes.

MR. SAMSON: Then did you also state in that report:

> "The meetings were also held in order that waste reduction operations could be programmed and developed parallel with the design and construction of the municipal facilities."

MR. BOLTON: Yes.

MR. SAMSON: Is that a part of that report?

MR. BOLTON: I believe so, that is correct.

MR. SAMSON: Yes. Then did you also go on and say:

"The larger packers assured cooperation."

Is that right?

MR. BOLTON: Yes.

MR. SAMSON: That is substantially correct, is it not?

MR. BOLTON: Yes.

MR. SAMSON: What are you referring to when you are talking about the larger packers? Is that Swift, Cudahy, Armour and Wilson?

MR. BOLTON: Yes, sir.

MR. STEIN: Which was the other one?

MR. SAMSON: Swift, Armour, Cudahy and Wilson.

MR. STEIN: Is that it?

MR. BOLTON: Yes, sir.

MR. STEIN: Thank you.

MR. SAMSON: And they agreed to have sanitary engineers, chemists and other experts in the field begin studies of their wastes and effect waste reduction in both volume and characteristics, where possible?

MR. BOLTON: Yes.

MR. SAMSON: That is a correct reflection of the situation as you reported at that time?

MR. BOLTON: Yes.

MR. SAMSON: And then you make this statement, without any further comment:

> "Visits were made to each of the smaller members of the industry to obtain data and waste discharges."

Did you discuss this with the smaller members of the industry? I am referring now to the fifteen small packers.

MR. BOLTON: We endeavored to, sir.

At the first meetings, we worked with the nationals. Later we worked with the independents and invited them to the meetings.

This was before they had an organization. They had one man to appear at one of the meetings.

MR. SAMSON: Do you recall who that was, and who he represented?

MR. BOLTON: I do not. I have his name in the files, but I do not.

MR. SAMSON: Maybe it is just as well to keep it that way.

MR. BOLTON: Yes, I think that's correct.

MR. SAMSON: But go ahead.

MR. BOLTON: And then later on, when the city wanted to keep current with the cooperation, when the plant was about ready to go into contract, then some of the packers, the nationals, approached the city to see what the status of the construction on the plant was, and that is when they finally all came together and we started really working with them.

MR. SAMSON: And that is when this matter of the paunch manure and the removal of industrial wastes at the situs became an indigestible problem; is that right?

MR. BOLTON: That is when it started giving us indigestion, sir.

MR. STEIN: Let me see if I understand that, for clarification.

As I understand this, the large packers had no objections to removing this at the site, but the small packers did?

MR. BOLTON: I won't say no objection. That is the reason for the statement in the report, because the statement is in quotes.

MR. STEIN: This is what I am asking for, a clarification.

MR. BOLTON: They worked very closely with us.

MR. STEIN: In other words, while they may have had an objection, they were ready to go along. They were not absolutely obstinate, or they may have been slightly recalcitrant, but the smaller packers really got their backs up and didn't want to do it?

MR. BOLTON: That is the reason for the one paragraph in the report quoting that.

MR. STEIN: All right.

MR. SAMSON: You stated in here that larger packers, and you referred to the big four, assured cooperation and agreed to have their sanitary engineers make this.

MR. BOLTON: Yes, sir, because in large installations, with diversification in the packing industry, gentlemen, and losses in evaluation, you must apply it to the local plant, depending on the type of operations and the processes.

Therefore, we wanted their sanitary engineers to work very closely with us, because they know their own plants better.

MR. SAMSON: And they worked very well, all of their gentlemen, and you had the full cooperation from them, didn't you?

MR. BOLTON: Yes.

MR. SAMSON: Now, leaving this subject for a moment, Paul, is there any reason, based upon your engineering knowledge -- and I know you didn't engineer this, but based upon your engineering knowledge and overall familiarity with this program, why these interceptor sewers from North Omaha and down along the river can't be placed into immediate operation and remove about 40 percent of the industrial and human wastes going into the river at the present time, except for minor readjustments?

MR. BOLTON: And those are not too great. I can tell you what they are, if you are interested in the details.

MR. SAMSON: And that sort of thing has been hanging fire for two or three months, hasn't it, Paul?

MR. BOLTON: I will look to Mr. Geisler for that.

MR. SAMSON: I believe that engineering has been done by the Daly Company. I don't know if they have a representative here, but I am just asking you on general information.

MR. BOLTON: Yes. The latter part of May was the target date. Since May.

MR. SAMSON: Since about May?

MR. BOLTON: I think I am right on it, yes.

MR. SAMSON: So there is no reason at all why that part of the pollution load goes into the river, from your information and based upon your knowledge, and why that can't be processed through the treatment plant?

MR. BOLTON: Yes, sir. I will go further than that, Mr. Samson, in case you have forgotten.

We are coordinators over the whole project, as one of your men brought out.

MR. SAMSON: I'm glad that you got that plug in. That is important.

MR. BOLTON: That is why I say it.

Mr. Geisler went over the system last Thursday. That is the reason I can tell you what the small details are, and I think, before long, it will be in operation.

MR. SAMSON: Would it be a great problem, even if the paunch manure was continued on down to the Monroe Street and South Omaha sewer, to work a valve system of some kind where, at the time the paunch manure isn't going into the river -- I am speaking about night, early morning, late afternoon -- why that couldn't be diverted by a manually operated valve, or whatever it takes, engineering speaking, to divert that also into the treatment plant?

Is there any reason why that can't be done?

MR. BOLTON: That is by automatic valve, controlled from the panel board. That's what we were talking about.

MR. SAMSON: Why isn't the South Omaha Treatment Plant operating on that sort of a part-time basis? What is the problem down there?

MR. BOLTON: We don't want to take any chance of getting the paunch manure into the system yet, until we get the north side coming in. We want to then have enough to operate the entire plant.

MR. STEIN: Why isn't the north side coming into it?

MR. BOLTON: Do you want to know the details?

MR. SAMSON: I don't think we need to burden the meeting with that.

MR. STEIN: When do you expect the north side to be getting in?

MR. BOLTON: Sir?

MR. STEIN: When do you expect it to be operating?

MR. BOLTON: That was answered this morning. I believe the answer was two or three weeks.

MR. SAMSON: And at that time, can you also bypass, as far as the South Omaha and Monroe Street sewers are concerned, on those manually operated valves down there?

MR. BOLTON: On an installation such as this, we are going to try as soon as we get the combined item by the plant. Then we will try it. If the city wants to go into that method of operation -- I know we have talked about it -- then we will try to operate the whole works as much as we can.

MR. SAMSON: You see, the matter that is of some concern to me is the fact that here we have twenty million dollars tied up, we are paying three percent interest on it, it has been running since 1958, and we have this tremendous investment of taxpayers' money involved, and we ought to use the facility.

You know as well as I do that if you let these things stand idle, they go to pieces.

MR. BOLTON: That is the reason we hope to get into operation soon.

MR. SAMSON: Thank you, Paul.

MR. SUTTON: One more thing, Mr. Stein. The conferee from Missouri would like to ask Mr. Bolton a question.

MR. STEIN: Yes.

MR. SMITH: I would like to ask Mr. Bolton if during his studies he has evaluated what effect there will be on the Missouri River as a result of this new procedure you have outlined or suggested -- that is, treating the paunch all down at the plant.

What is the effect on the river? What is the difference between that and removing it at the source?

MR. BOLTON: In the studies to date, Mr. Smith, I don't believe there will be a very great difference, which has been pleasing to me. I have done an evaluation, as you know, and it came out pretty close, and I was very pleased. Did I answer your question?

And, gentlemen, I have worked with all of these men, which accounts for the use by me of their first names.

MR. COULTER: Mr. Bolton, before you leave, I wonder if I could pursue that line of questioning that Mr. Smith had there just a little bit more.

I understand that several alternatives have been considered for putting the plant into operation and handling the paunch manure problem, that concurrent progress was made on the sewage treatment plant, and a number of alternatives were considered.

One of them was collection in a separate line, that is, a separate sewer, that would receive the paunch manure in just enough liquid waste to make it flow and transmit it probably to two locations, where it would be picked up and moved to either an incinerator or to land disposal, or some other kind of disposal.

Then we have also had this one alternative with us since 1957, that the industries themselves, in compliance with various understandings in the state or city ordinances, would remove the paunch manure at their plants.

This paunch manure, as I understand the situation, would have been hauled away at city expense and disposed of at city expense, so that there is no question there of industries moving to cities part of the expense that they had originally anticipated.

MR. BOLTON: May I qualify that, sir?

MR. COULTER: Yes.

MR. BOLTON: Did I understand you to say hauled at the city expense?

MR. COULTER: That is what I wanted to bring out. Hauling would have been at the packers' expense.

MR. BOLTON: Yes.

MR. COULTER: Then after a number of studies, you have concluded that it would be better -- and by "better," I mean to include all the factors that you brought out here about trucks on the streets and costs and so on -- to transport the paunch manure with the liquid wastes from the plant to a central point where it would be separated, dewatered and incinerated.

Mr. Smith just asked the question, would it make any difference, and, in alternative, would it make any difference on the Missouri River?

Don't we have to bring out here that there is a delay of some two years where this paunch manure, as well as the municipal and industrial sewage in that liquid will go to the river, while we wait to put this alternative into operation, if things go as it stands now?

MR. BOLTON: Yes, sir. That has been bought out.

MR. COULTER: And the second thing we have to consider, the alternative as it is now, would result in waste bypassing -- that is, paunch manure, and paunch manure only, bypassing the separation facilities during storm water flows.

And, for the benefit of all of us, as I understand it, the interceptors are designed to take about three times dry weather flow?

MR. STEIN: Is it three times? Is it three or two?

MR. BOLTON: Three times, sir.

MR. STEIN: All right.

MR. BOLTON: You see, there is a change. That is the reason I stepped up here. Above the Council Bluffs Waterworks it is five times. Below the Council Bluffs Waterworks it is three times.

MR. COULTER: In these sewers, it would be three times?

MR. BOLTON: Yes.

MR. COULTER: So that a fraction of the wastes and a fraction of the paunch manure would be diverted with storm water flow to the Missouri River.

With all due respect to your observations of the grade and the slope and the velocities in the sewers here in Omaha, it is a repeated observation throughout the country that material which settles rapidly, and this is one of the blessings of paunch manure, if there are blessings of paunch manure, which makes it amenable to this scheme that you are talking about -- it does settle rapidly, and it has been a common observation in all of the systems that we have examined over the country in the past few years that materials such as this will settle out during dry weather flow in the sewers, and that one of the great disadvantages of combined sewer systems is that when a storm comes, there is a flushout of the sewers and the accumulated material goes through the diversion works into the river, so that you have a far greater pollution load going into the river than the proportion of time that you are diverting sewage from the treatment plant.

I have noticed that you have been careful to avoid stating that you have made observations which would demonstrate that there are not sludge deposits built up in the Monroe and South Omaha sewers as they are now operating.

Before this alternative is put into operation, or perhaps you can clarify the record here now, have there been studies or observations to determine if or if not these deposits do build up during prolonged dry weather periods, and if they do scour out during storm water periods?

MR. BOLTON: I will answer it from the consulting engineer's standpoint the best I can.

The sewers that we have observed, and I have qualified that purposely because we have not gone block by block, we have had the high velocities that I have had to contend with.

I don't know if Mr. Geisler can answer the question or not, but the maintenance crew can answer that. I don't know if they are represented or not.

MR. GEISLER: To the best of my knowledge, the city's maintenance crew has had no problems with any settlement within the sewers, or the sewer lines in this particular shed.

MR. COULTER: The problem that I referred to, Mr. Geisler, would not be a problem of stoppage or one that would normally call for a maintenance crew, but one that you would determine through either measurement of the pollutional load in the diverted sewage or through actual block by block going into the sewer line where the material is deposited during dry weather flows and actually looking for them.

MR. STEIN: In a few cases where we have done this, we have found a remarkable amount of stuff on the bottom of the sewers. This did not call for a maintenance crew.

MR. FERGUSON: May I offer one piece --

MR. STEIN: By the way, let me say that this does not necessarily relate to Omaha in particular, but this relates to all combined sewers we have examined, and we are just beginning to look into these combined sewers. The point is that there is an extraordinary amount of material that gathers there during dry weather flows.

We may be losing the audience here, and it might be well to take a second on this.

Are you familiar with what combined sewers are? Does a large group not know what we are talking about? If you are, just raise your hand so that we can explain it. They know. All right.

The point is that we have found a tremendous amount of material in combined sewers. This has not resulted in maintenance problems.

MR. FERGUSON: This point cannot be denied, that as a general principle this probably is true.

However, let me offer you one piece of evidence which may set your minds partially at rest, at least with respect to this problem.

In June, we instituted a sampling program to more fully define the limits of the problem that we had to deal with, and we had an around-the-clock sampling of the two primary sewers involved, the Monroe Street Sewer and the South Omaha Sewer.

It became quite obvious during the sampling program that the discharges of paunch manure at the mouth of the sewer, which is at the edge of the Missouri River and substantially at the same point at which they would enter a separation plant then at the sewage treatment plant, were very definitely seasonal, by the day. In other words, during the daytime, during the time of day when the packers were in operation and actually killing animals, there was a heavy discharge of paunch manure, which dropped to nearly nothing in the way of paunch manure during the night.

MR. BOLTON: May I add to that?

MR. STEIN: Go ahead.

MR. BOLTON: During our sampling period -- I believe it was in 1957, if I recall -- as you know, when you are designing you like to have your observations as well as your collecting samples.

We were observing this for conditions coming through that we might have to cope with, and I am happy to say there were none during the seven or ten days we sampled them.

That was on dry weather flows. We have twice gotten shut down on wet weather flows, and I did not observe those.

MR. STEIN: I just have a couple of very short questions.

Mr. Bolton, even if this new plant is in operation in 1966, during the periods of storm, are you going to bypass it?

Let's suppose we hit this during the period that the Corps of Engineers said they are going to run a low flow in the river because they don't have any navigation problems, and you get a local rainfall in the Omaha area, and you begin bypassing.

What is that going to do?

MR. BOLTON: May I take that in two phases, Mr. Stein?

MR. STEIN: Yes.

MR. BOLTON: In the first phase, I don't like to even bring this one out, but we have a history of not causing the damage except in a few places downstream. You know what I mean by that?

MR. STEIN: Yes. That is the place we are interested in.

MR. BOLTON: Yes. In the bypassing, we still are taking the three to one dilution. I am speaking down here of these two.

MR. STEIN: Yes.

MR. BOLTON: We are putting the dams in and hoping to divert the maximum amount of solids from the bottom of the sewer into the plant during this storm weather flow.

MR. STEIN: How are you going to do that?

MR. BOLTON: By the natural weight of the solids, and that is where the velocity is a little high at that time, but by the natural weight of solids, your solids will have a tendency to go along the bottom of the sewer.

So, we always try to get the bottom of the sewer off and bypass the top.

MR. STEIN: In other words, you are trying to shoot the bottom of the sewer into the plant, and the top out?

MR. BOLTON: That is right.

MR. STEIN: Well, you pointed this out.

MR. BOLTON: Yes, sir.

MR. STEIN: You really can't have it both ways. If you have high velocity, you have really got a good mix.

MR. BOLTON: That is the reason I brought that out. When we get these big storm flows, it is a detriment to us, yes.

MR. STEIN: Mr. Bolton, let me ask you this. This is the last one, I hope, unless there are more.

I don't want to be unfair about this, but let's see if I can state this. As I understand it, in 1957, 1958 and 1959, you began working on your plant. Your plan called for complete removal of these solids. In other words, no solid wastes from the packing houses would get into the sewers, and consequently into the river. It would all be removed at the plant site, trucked away, and either burned or put into a sanitary land fill.

Instead of that, now we are going to dump this in the sewer, and eventually the residue is going to go, after treatment or non-treatment, as the case may be, into the Missouri River.

It is clear that while the plant is ready to operate, and hopefully within a couple of weeks, and we had all hoped that all these wastes would be out of the river two weeks from now henceforth, at least until December, 1966 or, if we know operations in water pollution control, at least until 1967, all these wastes will continue to go unabated.

In addition to that, we are going to go ahead with a method whereby we are going to burn this stuff, which has never been done before, and we hope it is going to work.

In addition to that, we are going to bypass during storm water overflows and run the stuff in raw.

The reasons we don't have this first alternative to which everyone has agreed, and have to go to the second are threefold.

First, as I understand it, it will save money. Secondly, there might be a nuisance situation in carting this through the streets. Thirdly, it will create a favorable climate for the packing house industry.

Is this the situation, as I understand it?

MR. BOLTON: Let's go back to one statement, Mr. Stein, which you made.

Did I understand you to say that under the original plan, all solids would be taken out?

MR. STEIN: Substantially.

MR. BOLTON: Oh, all right.

MR. STEIN: I stand amended. You are correct.

MR. BOLTON: Excuse me?

MR. STEIN: Yes. "All" is a big word.

MR. BOLTON: Yes.

MR. STEIN: Yes.

MR. BOLTON: If you want to go a little further on that, here again it gets complicated. It is a matter of operation of the plant after it goes in.

On a nominal range, we can divert the sewage from the big carrier of the packing house load into the plant and cause it to back up over the dam up on Railroad Avenue and go around the storm flow. Therefore, we can continue bringing a reasonable amount of this paunch manure that comes down the bottom right on in to minimize the additional load -- I will use that term, if you agree with me, Mr. Stein.

MR. STEIN: Yes.

MR. BOLTON: To minimize the additional flow in the river. Under terrific storm flows which we get once in a while up here, we might have to crack the other eight foot diameter barrel or let it go direct to the river.

MR. FERGUSON: These stream flood conditions that we speak of are resulting from high flows or heavy rainfalls generally during the summer when the river is high, and not at an extremely low flow.

MR. STEIN: Yes. That is always when it is used more.

MR. BOLTON: That is the reason I started out and gave you the parameters of agreement.

MR. STEIN: You know, just looking at the lush greenery you have here and comparing it with what I have back home in Virginia, I would say you have had a lot of rain.

MR. FERGUSON: That's an understatement.

MR. STEIN: All right.

MR. COULTER: In the design of the separation part of the alternative that we are talking about here, where we separate and dewater and then incinerate, have you considered and, if not, what would be involved in placing the separation chamber or chambers ahead of the diversion works, so that you would actually take 100 percent of the flow through the separation chamber instead of taking it after it was diverted?

MR. BOLTON: In the Monroe Street Sewer, which carries the largest amount, we are pressurizing that tunnel in order to carry that quantity into the plant by gravity, in order to avoid an expensive restoration and save money.

Therefore, if we would open it up, the pressure, we would have to have the chamber high enough to bring it into the plant by gravity, so it is planned to pressurize it like an inverted syphon.

MR. COULTER: You go directly from the pressure line into the diversion works; is that correct?

MR. BOLTON: Yes, and then we will see if we can carry it out in the two 42-inch connections.

MR. STEIN: I really don't know where we are faced with this. I think this does give the conferees a dilemma, don't you?

MR. BOLTON: I didn't hear you.

MR. STEIN: I say I really do think this gives us a dilemma. We are faced with a situation.

Here we have these fellows from Missouri downstream where their mayor has his industry taking out the paunch manure at the source.

Goodness knows, and I will put this on the record here, I had all kinds of pressure from all parts of the country and all kinds of criticism, to insist on secondary treatment all the way up and down the Missouri River. I think we tried to hit a reasonable compromise and go for primary treatment and save the people in the valley millions and millions of dollars.

We expected though that when you went with primary treatment, we would operate in a reasonable way and not push this to the limits of endurance.

The difficulty that I am afraid of, and you know I am with you people here and I want to try to do what I can, but the point is that for every action we have a reaction, and I am asking you to look at the implications of this for the other cities.

You are pretty much on the borderline, and it is not going to take very, very much, if something does not work, for a tremendous movement to get started to require secondary treatment for all your cities, and I would hope we would not have to do that for a while, until we saw how this worked out.

All these other cities such as Sioux City, St. Louis, Kansas City and St. Joseph, have kept well within the outskirts of this primary treatment operation and have tried to make it work the best they can.

We assumed when you were putting in the treatment works, and I think this was the assumption and design, that you were doing it the same way.

If, on the other hand, we are going to push the pendulum the other way and try to stretch primary treatment to the biggest load we can put in the river, I don't know how much of a service you are doing to yourselves or this whole river valley.

This is really a question for us. I will tell you this, and my professional career is committed on this, we are ready to have primary treatment here and give it a fair chance of operation during the next decade to see how the thing works.

MR. FERGUSON: Mr. Stein, I don't believe it is a matter of the city's intent or desire in any way to push primary treatment to its maximum. It is the city's desire only to have a little bit more time in which to put this into operation, and that when this is put into operation, then the results will be approximately substantially the same as what was originally anticipated.

MR. STEIN: How long will this take?

MR. FERGUSON: I beg pardon?

MR. STEIN: How long will this take?

MR. FERGUSON: I believe the Colonel stated the date of December, 1966.

MR. STEIN: December, 1966.

The problem we have is this: You know, we are in the never-ending circle of prosperity. We started this, sir, in 1957. As I pointed out there, the assumption was based on a kind of static development in the Missouri River.

Since 1957, and it is going to be ten years until 1967, until you are in operation, I think we are going to experience, and you people have seen this in your valley, an unprecedented growth.

If, by the time we get through with the growth we have and the primary treatment and what you are putting in, we are going to put the same load in the river as we were ten years ago when we got started, with all the twenty odd million dollars we have spent, we might be twenty million dollars poorer, but, like Alice in Wonderland, we will have been running awfully hard to stay in the same place.

I think, with all the effort we have put in here, gentlemen, we would like to get a little ahead.

MR. BOLTON: Excuse me, Mr. Stein.

MR. STEIN: Yes?

MR. BOLTON: Thinking back on the primary desire, the removal of solids, the city does want to clean up the river. There is no question about that.

MR. STEIN: I am sure about that.

By the way, I hope I have made this clear. Although you hear these technical discussions in here going back and forth, I don't think philosophically there is any difference between the state people, the city people, the industries and the Federal people.

All of us are sincerely trying to clean up the river. This is a key point: In some of these situations, you don't find this. I don't think there is any difference. These questions really, and this is the way we do things in America, are designed to get at the facts and explore the methodology. They are not meant to be adversary in any way.

Are there any further questions or comments?

MR. BOLTON: If I may add this, there are some ladies back in the audience who were very instrumental in passing these bond issues.

MR. STEIN: Are there any further questions?

(There was no response.)

MR. STEIN: All right. May we recess now for ten minutes?

(After a short recess.)

MR. STEIN: May we reconvene?

MR. SUTTON: Mr. Stein, the next gentleman we will call to testify will be Mr. O'Rourke.

Will you please take the podium and identify yourself, and then you call your people in the sequence that you want to, if you will, please.

MR. O'ROURKE: I don't know whether they are my people, but I will try to call them.

STATEMENT OF CHARLES W. O'ROURKE, UNION STOCKYARDS COMPANY, OMAHA, NEBRASKA

MR. O'ROURKE: Mr. Stein, and members of this conference:

I am Charles W. O'Rourke, and I work for the Union Stockyards Company of Omaha.

I do not represent the packers, but the Union Stockyards Company is vitally interested in this particular problem of packing house waste disposal.

Omaha, as has been said here many times, is the world's largest livestock market and meat packing center. This industry of the packing business means much to my company because, as a livestock market, handling over six million head of livestock, we wouldn't be here if it weren't for the purchasing power and the demand of the packing industry, so we certainly want to do everything possible not only to keep those packers we have, but to encourage others in the packing industry to move into Omaha and into Nebraska and this particular area.

There has been mention of the little packers and the big packers. What has gone on since 1957 I am not complete aware of for a number of years, but for the past two or two and a half years, I have been closely associated with this particular problem.

Maybe the thing to say would be "Forgive us our sins," but now I think we are down to facts, and I hope the conferees here will bear with me while I tell a little bit about this industry and how important it is, not only to Omaha, but to the entire area and even nationally.

The Omaha livestock market, our market, receives livestock from 26 states, not just one or two. We send livestock alive to packers in 130 other cities in about thirty states, and other types of stock cattle to farmers and feeders in 22 states, so this particular industry here is of national importance.

It is just as important to the livestock industry, the farmers and the feeders and other central markets like it, as Wall Street is to the stock and bond industry, because you have to have a place to base your price, and large volume and heavy demand does that.

This industry in Omaha, the packing industry, the livestock industry, contributes about an eighty to ninety million dollar annual payroll. It costs the packing industry alone, in goods and services, about three quarters of a billion dollars, so then to the area national product or gross area product, so to speak, they contribute about three quarters of a billion dollars. We want to keep this industry here.

Now, a lot has been said, and I think as I have listened here, that the crux of this thing isn't what I thought it was going to be, but it is inplant cleanup.

The city engineers, very competent people, two very competent consulting engineering firms, Henningson, Durham & Richardson, and KirkhamMichaels Associates, have all agreed that this is not the proper way to do it. It is the least efficient and the most costly.

The packing industry is here, gentlemen, for two or three reasons. One, of course, is the broad supply, but another is the cost of operations, and if you load onto an industry an additional burden, they could leave here as fast as they left Chicago. They could move to the hinterlands, and this industry would go out in this place.

Mr. Stein, when you asked the question, is this a matter of economics for the city, the people of Omaha or the packing industry, I would say it is a matter of economics in the packing industry, because after close study -- and a man will follow me here that I think has more facts technically than I do -- the industry, many of the plants, with an additional burden of building the facilities, the additional cost of hauling away, it could make the difference in operating profitably or not, so cost is important.

I am going to end. I am only going to take a few more minutes, and then I will answer any questions you may have.

But I hope the conferees will conclude, Number 1, that Omaha and the packing industry are approaching a solution to this problem, and, Number 2, that the conference will recognize that this is a larger problem than probably you have dealt with before.

St. Paul has been mentioned twice. We hope that you will consider a reasonable length of time, as the Director of Public Works has asked for, and I hope that our neighbors downriver will agree with this.

I know that this industry is trying to do everything possible to assist the city, the State Department of Health, the U. S. Public Health Service, in abating river pollution.

Certainly, they do not want to pollute waters for drinking or for boating and fishing, but I could say, and I will not be facetious when I say it, that in this particular area, if we don't have this industry, very few people will have enough money to go fishing.

We have, as the point at hand here, inplant cleanup. I cannot understand why we are back on that problem.

I was delighted particularly when the engineers stated that this could be done properly by taking it out and incinerating it. I was more than delighted when Harry Trustin stood before you and said that the City Council had agreed to finance this situation.

I know that the contracts, on which Mr. Holland may talk, are made, and they are there to be signed.

We have lived with it for eighty years or more in this industry, and I hope that you will go along with another year or eighteen months, which won't make any difference, and don't put the additional burden on the industry.

Thank you.

MR. STEIN: Thank you, Mr. O'Rourke.

Are there any comments or questions?

MR. SAMSON: I just have a question or two.

You were here most of the day, Mr. O'Rourke. We appreciate your being here. I asked Mr. Bolton a few questions on his report dated in 1958.

Were you in any of those conferences back in 1958 with the consulting engineers on this general over-all problem of paunch manure?

MR. O'ROURKE: No, I was not. I said at the beginning that I wished I had been, but I have been trying to work and cooperate with and help coordinate with the city and the industry for the past two and a half years.

MR. SAMSON: I see.

MR. O'ROURKE: But the plant was already under construction at the time I actually got into this.

MR. SAMSON: You don't know who constituted the personnel in behalf of the large packers? And I suppose when they refer to "large packers," they refer to the big four that I have mentioned.

MR. O'ROURKE: I would assume so, but I do not know what personnel attended the meetings. I assume it is a matter of record.

MR. SAMSON: You don't know what the understanding was then between the big four at that time and the consulting engineers, of your own personal knowledge?

MR. O'ROURKE: Of my own personal knowledge, no, I do not.

MR. SAMSON: All right. Thank you very much.

MR. STEIN: Any further comments or questions?

MR. SAMSON: Another question, if I may.

Is there a division, or is there a sort of line of demarcation between the so-called big four and the small packers? Do they have their own organization?

MR. O'ROURKE: Well, as far as organization is concerned, the small packers, so to speak, have an independent packers' association.

As far as the big packers are concerned here in Omaha, I do not think they have an association.

The American Meat Institute in Chicago is an association joined by many other packers besides the so-called big four.

MR. SAMSON: Who heads up this informal small packers association that you referred to?

MR. O'ROURKE: Well, the president is Lee Bernstein.

MR. SAMSON: Do you know whether he was advised or knows of this meeting today?

MR. O'ROURKE: I don't know whether he was advised or not. I don't think it came as any formal invitation.

However, I think maybe this should go in the record, that these small packers -- Lee Bernstein, who owns his place, is always out in the yards buying cattle, and he is probably sweeping the floor tonight -- I don't know, but he buys the cattle, so he cannot be here. He has to be there when the market opens at 8:30, and he supervises the killing and everything.

These small packers do not have tremendous organizations.

MR. SAMSON: I believe he was present in the City Council chamber here some two or three months ago with certain other representatives of the small packers, and I believe you were there too.

MR. O'ROURKE: Yes.

MR. SAMSON: I forget who else was there, but is there anybody here in behalf of the small packers that you recognize or know, from the so-called small packers organization?

MR. O'ROURKE: To speak for them on a number of subjects, I don't know. I know that Bruce Meier of Kirkham, Michael & Associates expects to come up here, and Bruce has worked with them in studying the problems of paunch manure disposal by all methods.

I am not speaking for Bruce, but I presume he will answer any of the questions technically.

MR. SAMSON: Fine. That is all. Thank you very much.

MR. STEIN: Thank you. Are there any other further comments or questions?

By the way, I really appreciate what you said.

I want to say this in sort of clarification of the record. As I understand the schedule, Mr. O'Rourke, if we are going to be completed, it will be December, 1966, or the beginning of 1967.

This is not eighteen months; it is two and a half years, and I think that should be clear. What we are talking about is an extension.

MR. O'ROURKE: Did you say December, 1967?

MR. STEIN: 1966. This is 1964.

MR. O'ROURKE: So that is about a year and six months -- five months.

MR. STEIN: No; two and a half years.

MR. O'ROURKE: Two and a half?

MR. STEIN: Two and a half years. It is not a question of eighteen months; it is a question of two and a half years.

MR. O'ROURKE: I think the Colonel put that as the outside figure.

MR. STEIN: Sir, we had this conference here in 1957.

By the way, I am not trying to deprecate Omaha, because this is a pattern we see through the United States. Pollution control operations are expensive. They are costly, they require long operations and continuous vigilance, and it is rare that you can beat the deadline.

I doubt that when the Colonel gave his outside figure, that that isn't the figure we have to accept, so it is two and a half years.

This is one of the points, when you talked about inplant housekeeping. The question is, here we have been dealing with this since 1957 when we had the first conference. We have had a load of plans.

I think we would have been in one position if the plan called for the cleanup in what you were going to do two and a half years from right now, today, and we had been cleaned up, but what we have done here is we have run past the deadline and now we are faced with another two and a half year proposition, where the plans have been switched.

We didn't suggest the switch in the plans. We went along with the original proposal. The switch came here, and that switch added two and a half years to the schedule.

I just wanted to point this up.

MR. O'ROURKE: Well, I believe the switch in the long run, Mr. Stein, is going to be the proper way to do it, and I think that you as a representative of Health, Education, and Welfare, and Mr. Clare and Mr.

Filipi and everybody will be extremely happy with this type of thing.

If this works, and they say it will and have so testified here today, this could be the answer to all of your problems up and down this whole United States.

MR. STEIN: I am not quite sure of that. Evidently the other outfits, or, at least, St. Joseph is doing it another way.

I think just generally, as a philosophic proposition, when you remove a pollutant at the source and you don't put it in the sewer, this is the best way to handle it -- not that this isn't a reasonable way, but what I am saying is that here we are presented at the time when the schedule has run out with another two and a half years.

By the way, we have to deal with the facts as we see them, and I am just speaking for the record.

There is another point I want to mention. I want to be both cautious and candid about this, because I think this is a proposition that we have to state for the record.

I am an old public servant and have over 23 years of service. We carry out the law the way the Congress has asked us to carry out the law. But I do think, sir, and I say this just to the group, and we have heard this before, this notion about this being a burden or a hardship on industry, and you say this to the states, and that you will move out, very often has been the argument that has been heard in the Halls of Congress for these many years.

I don't know how many of the state people are entranced by having a Federal agency in this picture, but one of the bit motivations, as I can see it, for having the Federal agency in the picture is the constant argument that if we do this, industry will go out.

The Congress wants to be sure that these people like Jim Coulter and myself will be waiting for industry wherever they move.

I am just speaking philosophically here. I am just saying that this again is a fact of life. That is why they put us in the business.

By the way, in my experience, I think this is a myth, because I have never heard of an industry moving because of a pollution problem. Although this has been alleged, I have never been able to track one bona fide case down, but whether it is a myth or not, this has been a strong factor in the Congress enacting Federal control, and it is precisely the people who don't want Federal controls and Federal activity in this area that have created this.

MR. O'ROURKE: I hope you are not referring to me.

MR. STEIN: No.

MR. O'ROURKE: I didn't say that I didn't want Federal controls, and I don't think any of the industry did, Mr. Stein.

All we ask for is a little time. We have come to the place where the city, through the City Council, has made a commitment, and we don't want this to be upset.

MR. STEIN: Yes.

MR. O'ROURKE: Our problems here have been paramount, and now we are at the point where these are going to be solved, and we will hope that nothing will be done to upset these plans.

MR. STEIN: May I assure you that as far as we are concerned, we are here to assist the city, the state and the industry, and not to upset any going pollution control program.

MR. O'ROURKE: I am sure of that.

MR. STEIN: I think the last thing we want to do is to do that.

MR. O'ROURKE: In fact, we have been working for years trying to solve this problem.

MR. STEIN: We understand this.

By the way, while you are up here, sir, I would like to again, from our point of view, commend this group. We have worked with many industries. I don't think the packing house industry has to take second place to any as far as measuring up to its responsibilities, recognizing that it has a pollution problem and it has to meet it. You can get a whole spectrum of industries, and as far as I can see the packing house industry has recognized its responsibilities as much as any.

This is true for various reasons. You can get philosophic about this. First, they do sell to the public. Secondly, the packing house industry is so located that they generally are an integral part of the community. You don't have a plant way out in the hinterlands with a big fence around it, isolated from the rest of the world and living in a world of their own.

We do find that the packing house industry is among the best industrial neighbors you can have, and we recognize this, sir.

I think this is the only reason we talk this way. Otherwise, we would really be at arm's length.

MR. O'ROURKE: But I hope the economics will be considered in this.

MR. STEIN: Absolutely, sir.

MR. O'ROURKE: And the fact that we don't want to lose any part of the industry, and we want to have a climate for other people to come in, but we do have the supply of livestock.

MR. STEIN: Yes, sir.

Thank you.

MR. O'ROURKE: All right.

MR. STEIN: Before you call the next man, may I just make an announcement?

It is the consensus of the conferees that we try to finish tonight, as I understand it, and we will keep pushing on until we do.

MR. O'ROURKE: I want to introduce Bruce Meier of Kirkham, Michael & Associates, who has worked with the independent packers, and somewhat in cooperation with the majors, in running tests and working engineering-wise on the various problems of waste disposal.

MR. MEIER: Thank you,CHarley.

STATEMENT OF E. BRUCE MEIER,
KIRKHAM, MICHAEL & ASSOCIATES,
OMAHA, NEBRASKA

MR. MEIER: Mr. Stein, Conferees, Ladies and Gentlemen:

I am wondering, in listening to some of the discussion, how many of the conferees have visited packing plants and have watched the opening of the stomach, and so forth.

Could I see the hands, so that I can outline what I am about to say?

(There was a show of hands.)

MR. MEIER: Thank you.

MR. SAMSON: Mr. Meier, I once had the pleasure of going through the Hormel plant at Freemont, Nebraska, and watched the complete operation there, and the general manager and superintendent there is a member of the Nebraska Water Pollution Control Council.

MR. MEIER: He is.

I think, for the benefit of the others in the audience who have not witnessed this operation, it should be clarified to this extent, that the paunch manure about which we speak, is actually the stomach contents of the animal which has been slaughtered.

The stomachs are separated from the rest of the internals of the animal, and generally, in the traditional operations, are moved into what they call a paunch table. There the stomachs are opened and the paunch manures are removed.

The paunch manures are not dry; they are watery. They are placed in buckets or containers and let sit for a few minutes. Water begins to collect on the upper surface.

In order to transport the paunch manures or the packings and greases from the paunch table, the flushing operation is generally used.

Furthermore, many of the packers, probably most of them, save the stomachs. The stomachs are opened, scrubbed and cleaned, and are known as tripe. The paunch umbrella, on which the tripe is cleaned, requires considerable flows of water, so that it is a very natural part of the internal operation of a slaughter facility to transport the paunch manure materials from the edible area by the water carriage method.

In other words, it would not be practical to put this material into carts, and so forth, and haul it out, so long as the tripe is being saved.

Now, then we say, well, why should we let it get in the sewer? Well, it is in the sewer right there. It is in the waste water of the plant from the moment it falls upon the paunch table, so that it has to be recovered from the waste flow.

Whether it is recovered a few feet on below the paunch table by a screening arrangement, or whether it is allowed to continue and to join with the rest of the waste waters in the plant and is recovered at a point further downstream, leaves us with a very similar problem, or, rather, very similar results in the matter of keeping and retaining paunch manures from the sewers or from the receiving water body or treatment facility. We will then eventually recover about the same weight of paunch materials, regardless of where we recover and screen the material.

There was a question raised earlier this afternoon in the meeting here, and the question approximately was, is there any way whereby the paunch manure materials can be kept out of the Missouri River during the interim design and construction period necessary to realize the construction of these proposed facilities down by the River?

I think honestly that there is only one way that this could be done, and that would be to lock up the meat industry and the City of Omaha until the facilities are completed.

Now I would like to cite some facts, some other information, which I hope will be helpful to the conferees in their deliberations, and presumably in the development of their conclusions and recommendations.

For example, we feel that the proposed plan may even tend to reduce some of the load on the treatment plant because of entrained grease removal, the grease being entrained with the paunch manure materials.

The same thing happens at your own garbage drains where food particles are shredded and pass on down the flue. This is the fact. We know this to be a fact, because we collected samples of paunch manure materials directly from the paunch tables, where there is no grease or very, very minute amounts of grease are involved. We also recovered materials by screening it from the sewers.

We performed tests on both samples to determine the heat content of these materials, and to determine the sustainability of combustion or burning, and, very evidently, the evidence is quite plain that there is grease collection by adherence to the paunch manure materials.

As I said a moment ago, essentially the same amount of dewatered paunch manure will be removed, regardless of the location of the dewatering facilities. I think this is an honest statement.

Successful paunch manure recovery facilities are operating at waste treatment facilities at Fort Worth, Texas, at Rochelle, Illinois, at South St. Joseph, Missouri, and at South St. Paul, Minnesota.

MR. SAMSON: Pardon me, Mr. Meier. Will you preface that statement again, just before the reference to those towns?

MR. MEIER: Successful paunch manure recovery facilities, facilities that exist, are operating successfully and are located in those four cities.

MR. SAMSON: Thank you.

MR. MEIER: In each case, the paunch manure is delivered to these facilities through trunk interceptor and outfall sewer systems. This too is a successful operation.

Therefore, I would have to say that I can't precisely agree with your statement, Mr. Stein, earlier when you indicated that you felt the proposed plan was experimental. Insofar as incineration of these materials is concerned --

MR. STEIN: Pardon me. May I just interrupt there?

I thought I was just summarizing what the other people had said. I am glad to have this.

MR. MEIER: I see. This word "experimental" was mentioned quite a few times.

MR. STEIN: I thought I was recapitulating what other people had said.

MR. MEIER: I see.

MR. STEIN: I have no notion of whether this works or doesn't. I would be glad to have the idea that it does.

MR. MEIER: Then my introductory remarks probably should be rephrased, and say I should like then for the sake of the record to say what I said.

MR. STEIN: But while we are on that point, as I understood it, incineration wasn't done anywhere else.

Am I correct about that?

MR. MEIER: I am coming to that.

MR. STEIN: Yes.

MR. MEIER: I will make comment about that just now.

MR. STEIN: Yes.

MR. MEIER: Insofar as the incineration of these materials is concerned, there is no question but that the recovered materials are burnable. Guarantees of this are readily available from reputable manufacturers of suitably designed incineration facilities. All the materials involved are burnable individually, and therefore are burnable collectively.

There is nothing about any of the materials that would inhibit combustion. Because of the grease retention and adherence, we believe that in a properly designed facility down by the river, except for start-ups of the incineration facilities, that these materials are more than likely to be self-sustaining from a heat standpoint, and therefore supplemental fuel requirements will be at a minimum.

The present Omaha Treatment Plant is designed to accommodate up to three times dry weather flow. If I understood Mr. Bolton, he feels it can go perhaps even a little bit higher than that. They can have an extra cupful there. Flows in excess of this amount are bypassed in accordance with the approved design.

Now, storms producing bypassed flows, did you say, occurred rarely, Colonel?

COLONEL SUMNER: Will you repeat the question, please?

MR. MEIER: Storms producing bypassed flows occur rarely?

COLONEL SUMNER: I think you can answer your own question there. You have been here a lot longer than I have.

MR. MEIER: All right. I haven't been down there watching it, though.

MR. COULTER: Surely the consultant engineer must have an answer to that, and I don't think it would be rare.

MR. MEIER: Well, it isn't every day.

MR. COULTER: Every day isn't exactly rare.

MR. MEIER: Or every week.

MR. COULTER: Every week isn't rare. Once a month would not be rare either.

MR. STEIN: Can you answer that, Mr. Bolton, or not?

MR. BOLTON: No, sir, I cannot. Somebody asked me that, and I said I would have to check with the weather bureau as to the frequency and the probability.

COLONEL SUMNER: What is "rarely"?

MR. STEIN: How often does it occur? Surely you had some basis for designing the storm water overflow.

MR. BOLTON: Yes. We had an idea on the storms, but I can't remember. I can't answer without checking it.

MR. STEIN: Thank you.

MR. MEIER: Until I am corrected, I shall maintain that it is rarely.

MR. STEIN: Pardon me. While we are on that point, and I don't want to get off this operation, I noticed he had a five times and a three times the flow. If I am incorrect, the engineers at least from St. Louis are here. At least, from the east side, you go down to two in some cases, don't you?

It seems to me that if the engineer designs for five and three, it might be a little more than rare where these people in East St. Louis work with two, but I think this is just an indication.

I don't know that we can be precise, but I think we should have all the facts on this point.

MR. MEIER: In addition, paunch manure is produced only during slaughter. Slaughter takes place less than 25 percent of the time.

During bypass flow periods, dilution to the swollen sewer flows and to the swollen river flows reduces the effect of discharging the total community waste to the river, at least to the equivalent of primary treatment.

MR. STEIN: Do you mind if I interrupt? I think it might be better for the record, and I hope you don't mind, but this is a point that I think possibly needs clarification.

If we have a regulated river and you have a localized rainstorm, it does not necessarily follow that you are going to have a swollen river flow when you have a rain here.

MR. MEIER: Well, if the rain doesn't occur in the watershed which is controlled by the controlling structures, it certainly will affect the effect of the receiving streams.

MR. STEIN: All the way from Garrison Dam down, they cut the flow down. You may have your rain in this watershed, and this will kick off the sewers, and yet you will have a low flow in your river. I think with regulated streams now, we can't count on this.

Furthermore, as I understand it, when the people in the Corps of Engineers get a report of rainfalls in the tributary streams, they shut the dykes. They take account of that water and they cut down the stream flow, because they figure the rain runoff and they cut the water back.

MR. MEIER: I don't understand your reasoning, sir, shutting a dyke.

MR. STEIN: Letting less water through. In other words, let's suppose that you had 30,000 cubic feet a second during the navigation season.

Let's suppose you also had a rain in the Omaha-St. Joseph area, and they were picking a lot of water up there. They could get that flow of 25 cubic feet a second by releasing less water from Garrison Dam to come down.

They would figure that that water would make up that amount, and release less. In other words, I think with a regulated stream, these people in the Corps regulating the stream are trying to do their best to keep an even flow in the river, and this tends to equalize. They are doing their best to stop swollen stream flows.

MR. MEIER: I want to say this for the sake of the record, sir.

MR. STEIN: Yes, go ahead.

MR. MEIER: I think that there is not altogether a fact involved in your conclusion, and I will tell you why.

First of all, there is a lot of area between Yankton, South Dakota and Omaha, Nebraska. There are many streams which discharge into the Missouri River.

There are many storms of record which will produce flooding conditions on the Missouri River in the vicinity of Omaha.

There are flood frequency curves that you can obtain yourself from the Corps of Engineers pertaining to their respective floods and their frequency, and this is a fact.

The river will be swollen definitely under certain conditions. They cannot regulate the river for rainfalls that come below Yankton by operating gates at the Yankton facility.

MR. STEIN: I would agree with all that.

What I am saying, though, sir, is that you may very well have a rainfall here causing a bypass without a swollen stream flow in the river. There isn't necessarily a unique and complete correlation between a swollen flow of the river and a localized rainfall in a particular area, particularly your Omaha watershed, which may kick off the valve and cause a storm water overflow.

MR. MEIER: I would agree with that, sir.

MR. STEIN: Yes.

MR. MEIER: And along the same line, in companionship to that, we must also say that there is no reason why the river may not be swollen.

MR STEIN: That is right.

MR. MEIER: Yes.

To continue, the slaughter takes place less than 25 percent of the time. During bypass flow periods, dilution to the swollen river flows, and, as I said, perhaps due to swollen river flows -- however, with just swollen sewer flows, the dilution may go three to one.

The remainder of the statement remains, I think, truthful -- reduces the effect of discharging the total community waste to the river at least to the equivalent of primary treatment for organic strength. Thus, short-term diluted wastes are infrequently discharged to the Missouri River.

Now, in contrast, and here is an important section --

MR. STEIN: Sir, do you want to stop again?

This isn't my question. I am just looking up and down. You know, the old theory was that if we had storm water overflows, you would dilute it.

If you are going to run a storm water overflow and dilute this to primary strength, how come you are not permitting your new sewers in your new cities to go into storm waters? Why do we need these separate treatment systems?

Here is this wonderful combined system, and if you have a rain you are going to get it down to combined strength. I don't know why all these four states here aren't really encouraging that. You can save a lot of money all up and down the river.

MR. MEIER: Mr. Stein, my statement is not in support of combined sewers.

MR. STEIN: Why not do it? It is a lot cheaper. That is why they did it in the old days, if you could get it.

All we are asking for is primary treatment. If this will reduce it to primary strength, why don't we have combined sewers and save all that money?

MR. MEIER: The point is that in Omaha we have the combined sewers, and so we have to live with the situation, I think.

In contrast to the infrequent diluted discharges to the river outlined above is the operational hazard connected with accidental escapes of paunch manure to waste treatment facilities, totally unprepared to cope with such problems when removal was intended at individual packing plants.

Such accidental discharges to the present treatment plant could cause complete failure of the south complex and require bypass of the entire influence, regardless of magnitude of flow, until manual cleanup of the pretreated wastes could be achieved. I think that is a rather important observation.

Next, removal at the source would require trucking and dumping. Both of these operations possess undesirable asthetic elements, and constitute a potential threat to the public health.

In contrast, the proposed treatment plant recovery system produces a burnable material which will support combustion to a completely sanitary and inert action.

Next, we have heard this too. Perhaps here today and in other conversations, we hear this kind of a comment occasionally. Well, now, look, we have talked about other places here today. Paunch manure is screened out at the packing plants in other places.

Now, you talked about this some today. What led Omaha to the present sewage treatment plant central paunch manure recovery and incineration plan?

This was, I think, quite well answered, at least partially by Mr. Bolton and Mr. Ferguson. Let me list a few things. Maybe some of these are supplemental.

It is less than half as costly. When you are talking about something hear a half million dollars versus something perhaps in the vicinity or a quarter of a million or less, you are talking about quite a little money when it is a repetitive annual expense.

It is the most sanitary of any method. I will repeat that. It is the most sanitary of any method. It is transported by water carriage underground - no problem. It involves only one screening facility operated more efficiently by personnel primarily trained for the job, instead of nineteen separate privately owned screening facilities operated by personnel primarily trained for other work.

Its future operation and maintenance costs are predictable and stable. Any of you who operate a business know that this is important -- whereas trucking and land fill costs promise to expand and to increase in the future and may not be controllable.

As land fills become seven miles away, ten miles away, twelves miles away and twenty miles a day, how far away will they have to go to find a place for this in a few years? No one here, I am sure, can answer that question. It is a pertinent question.

This thing is pinpointed by this plan. It will be operable, it is controllable, and it will do the job whether there is ice or snow on the streets.

It has less potential labor problems associated with it, less equipment involved, and so forth.

MR. STEIN: Have you completed with that point, sir?

MR. MEIER: Pardon me?

MR. STEIN: Have you completed with that point?

MR. MEIER: Yes.

MR. STEIN: May I ask you a question on that?

MR. MEIER: Yes.

MR. STEIN: If the advantages of this system are so apparently overwhelming -- and, by the way, I think you are doing a very good job.

MR. MEIER: I hope so.

MR. STEIN: I really appreciate it.

If they were so apparent and overwhelming, how come an engineering firm, with the experience of Paul Bolton's outfit, didn't take this into account, and he designed a system which would call for individual disposal just a few years ago?

This is a tremendously persuasive case, which I think should have been apparent to any engineer.

MR. MEIER: I didn't identify that as a question.

(Laughter.)

MR. STEIN: Yes.

MR. MEIER: The south complex of this treatment plant, which is known as the South Inlet, could be operated, I think, about 70 percent of the time in the interim period awaiting construction of the proposed facility, so it appears that as soon as the plugs and switches are fixed, whatever is wrong on the north end, and a couple of weeks has been indicated, the north half can operate 100 percent of the time and the south half can operate 70 percent of the time. That's not too bad.

That's all I have to say.

Thank you.

MR. STEIN: All right, thank you.

Are there any comments?

MR. JOHNSON: I never heard that 70 percent before now. How come we haven't?

MR. MEIER: I just figured it out down here. I didn't speak until just now.

MR. JOHNSON: Do all the people here concur in that percentage, I wonder?

MR. MEIER: I don't know. I figured it.

MR. JOHNSON: We have heard 30 and 40.

MR. MEIER: You all have paper, and I will tell you how I figured it. You can check me.

MR. SAMSON: Bruce, you had your slide rule. We'll take your word for it.

MR. MEIER: No; I did it longhand, Mr. Samson.

MR. JOHNSON: Well, you knew the method anyhow.

MR. MEIER: Let's assume that slaughtering occurs eight hours a day, five days a week, and let's just touch onto there another couple of hours to account for spillage or any little thing that has to be swished off that has paunch manure, onto the time to get switched away, so I will say ten hours per day, five days a week, which is fifty hours, isn't it?

If we multiply 24 hours per day times seven days a week, we get 168 hours, do we not?

Now, 50 is a little less than a third of 163, isn't it?

However, we have some holidays too, where we don't slaughter, and we have Christmas and we have New Year's Day and we have Thanksgiving, and we have lots of these kinds of holidays, and it is a safe statement to say then that slaughtering will occur only about 25 percent of the time.

But I put five percent back on to try to be safe and honest with you, so I said that the south complex could be operated 70 percent of the time.

MR. STEIN: That is at full capacity.

MR. MEIER: Full capacity.

Any other questions?

MR. STEIN: No, I don't have any.

MR. SAMSON: That is real enlightening, those last few remarks of yours, Mr. Meier.

MR. MEIER: Thank you.

MR. SMITH: I would say this is very encouraging to us, because our problem downstream is grease, and when you say you are not going to do anything about the grease for two years, this is very disturbing to us, because we have got problems, and when you say you can do it 70 percent of the time, this is very encouraging to us because we can reduce the problem in a water supply which is serving 75 to 90,000 people.

MR. STEIN: Let's clarify this. When you say 70 percent of the time, you mean the packing house wastes gross, or do you mean municipal wastes?

MR. MEIER: When I say 70 percent of the time, I mean 70 percent of the time, with the clock going round and round and round.

MR. STEIN: But the large portion of that waste will, I take it, be domestic waste. In trying to get the answer to his question, the 30 percent of the time that it doesn't do it very well may contain the packing house wastes, and not all, but a large percentage of it, or a larger percentage of it.

MR. MEIER: There is a lot of grease that comes out of the average home.

MR. STEIN: That is right, but the packing house grease probably will not be treated in the South Omaha plant.

MR. COULTER: I think many of us would have shied away from the calculation for that very reason, that the percentage of time is not really an indicator of the effectiveness of the sewage treatment plant.

We would like to know what percentage of the wastes going to the sewage treatment plant could be removed in this operational schedule that you are talking about.

And, even for a boy that left the farm quite a long time ago, you can't really equate two o'clock at night with ten o'clock in the morning.

MR. MEIER: You weren't implying that I was attempting to make such an equation, sir?

MR. COULTER: I think you did in your calculations, more than implied it. You made every hour equal and said that we would solve 70 percent of the problem by --

MR. MEIER: No, I didn't say that, sir. I said the plant could operate 70 percent of the time, period.

MR. COULTER: Yes.

MR. STEIN: Is there anyone who has anything on this? I think this interests the conferees. Is there any way you can make a judgment on the south end of the plant?

Let's assume that the north part of it will work to 100 percent of its capacity, or optimum capacity. What percentage capacity or waste reduction of a load will the south end run in those terms? How much of the waste will it remove?

MR. MEIER: We have not made a study of it.

MR. STEIN: Again, I am trying, I hope in most cases, to reflect what the conferees did. I think this is what Freeman Johnson was getting at when he was talking in terms of a percentage, or Jack Smith, down in Missouri. They want to know how much of the waste you are taking out so that it won't get down to their state.

MR. JOHNSON: That's right. That is what we want to know, if it is possible.

MR. STEIN: By the way, I don't know that this is insurmountable, but this may be a productive thing.

I think we all can agree that during the two years, if we go along with this, while we are going and as long as you have the plant, that should be the maximum figure possible. I think we all can agree on that.

MR. MEIER: Any other questions of me?

Thank you.

MR. STEIN: Thank you very much, sir.

Just a moment, please. Mr. Coulter has a question, I believe.

MR. COULTER: Yes, one or two, if I could, Mr. Meier, to clarify this a little more.

I think that you have given convincing arguments for a central facility, and all of them are telling arguments and they are certainly things that have gone through my mind, I know, in the last few days while I considered this, but there is one thing that I don't quite understand yet and don't want to let go of yet, because I don't understand it.

For something like two and a half years, we are faced with a very large investment that will be limping along at somewhere far less than capacity.

As you pointed out, any good businessman would consider the interest lost in such an investment, and he would consider all the alternatives before he would sit still and lose that investment, and I think that those in the state and the city and those in the community here would also like to consider all alternatives before they just stand idly by and take the loss in the investment, in addition to the additional pollution in the stream for two and a half years.

I want to get back to this business of the paunch manure, and, with this setting, I want to make absolutely certain that there is no other way that you can keep the paunch manure out other than putting padlocks on the doors of the plants, because, as I recall, in the few cows that I have helped slaughter, the stomach could be emptied into a container, and perhaps as much as 90 to 95 percent of the paunch manure could be kept out of the water carriage system.

It would require some adjustment in operations, I am sure, in the plant, but would the adjustment be so severe as putting a padlock on the door?

What I am saying is that the facility that is designed, as I understand it, will remove about 90 to 95 percent of the paunch manure at the treatment plant, and with this removal the sewage treatment plant can be put into operation.

Now, on the interim two and a half year basis --

MR. MEIER: Operation on a 24 hour basis.

MR. COULTER: Yes, could take all of the sewage.

What I am really wondering is, have the industries and the city and the consulting engineers seriously considered what would be required on an interim basis here to, say, slaughter the animals, open the stomachs, put the paunch manure into a container, then go ahead with the washing operation, and accept the other 10 to 5 percent of the paunch manure in the sewer?

We believe we could still operate the sewage treatment plant with that much of a paunch manure load. Take the material that went into the container, truck it off to a land fill, and I am sure that the community would at least consider that for two and a half years, rather than abandonment of part of the sewage treatment works.

Is this at all reasonable?

MR. MEIER: I may be able to give you an inkling of the implications of the suggestion.

First of all, I am not prepared at the moment to speak for the meat industry division of the Department of Agriculture.

This work is done here on an edible floor. These materials have to be removed from the edible area. Just what the requirements or the details of these requirements are, I don't know. The parts are to be stored and transported and carted, and are spilled on this floor occasionally.

I am not sure that, first of all, the M. I. D. would permit this.

Now, secondly, and one that is, I am sure, extremely important, you are talking about hundreds of thousands of dollars a year. You are talking about hundreds of thousands of dollars a year, assuming that you can find a place to leave it after you get it hauled.

Maybe you haven't been reading the Omaha papers over the past two or three years, but Omaha has been having a serious problem finding a place to put its garbage and refuse. They may finally have found a place where it can go, I think it said in the papers, for about three years.

This problem has been going on and on and on in our Omaha community for literally tens of months, and it has occupied the time of our mayor and our council, of our Public Works Director, perhaps far beyond what it should have taken in time, when those people perhaps could better have spent efforts towards the promotion of Omaha and helping it to move forward instead of trying to solve this problem.

It is a real problem. Every place they look at, there is somebody who doesn't want the dump there and they are willing to spend money to see that it doesn't get there.

If we equate this with possible problems of the M. I. D., with the expenditure of hundreds of thousands of dollars per year to do this on an interim basis, along with where are we going to leave it and dump it, I honestly feel that the answers that I gave you a while ago constitute the only way that you can accomplish this during the interim period.

MR. COULTER: Your thoughts on the matter are quite clear -- that is, your personal thoughts -- but it still leaves me wondering.

Has it actually been worked out with the industries and the people of the city, or is there an analysis here that would equate the cost of removing this stuff in the interim?

MR. MEIER: I can answer you this way: In our study, and I think also in the study that Henningson, Durham & Richardson did, attention was given to a scheme which involved the removal of these wastes at the individual packing plants, and the trucking of the wastes to a sanitary land fill, or the delivery of them to an incinerator.

In our analysis, in our report that we made to the Omaha meat industry, with this setup provided on the basis of the city furnishing and operating sanitary land fill and the cost associated with that, the annual cost, both initial cost of the land and the operation and maintenance of the land fill and associated equipment, the trucking costs, trucks amortized on a five-year basis, et cetera, et cetera, insurance, tires, repairs and so on, operation and maintenance of the individual screening and transportation or conveyor systems for gravity loading -- they are to be quick loading when the trucks arrive at the individual packing plants -- and the initial cost on an amortized basis of the packing industry's requirements at their individual packing plants to do this in a sanitary way, as nearly sanitary as is possible to do it in a sanitary way, our estimate indicated that this would cost, and I can't remember exactly, but it was something over $450,000, set up on a permanent type basis, with amortization of equipment, and so forth. Do you follow me?

Now, it is reasonable then to assume that to do this on a make-shift basis over a period of a shorter time, that you are not going to build these inplant facilities, but you will be substituting labor and make-shift equipment, and you will be raising the costs of this thing, and this is why I say hundreds of thousands of dollars.

Whether it would be $500,000 a year, or $700,000 or $400,000, I can't tell you, but it will be hundreds of thousands of dollars a year.

Does that answer your question?

MR. COULTER: It does, yes.

I will accept your figures. As I calculated, as you talked, we come up with something like $45 a wet ton of paunch manure to simply remove it, according to your studies, and it does seem rather high.

I understand you will be operating something like 100 days a year, and you have got something like 300 --

MR. MEIER: What did you say about 100 days a year?

MR. COULTER: About a hundred days a year.

MR. MEIER: What is that? What is the 100 days?

MR. COULTER: This would be on hauling, assuming that you do not haul every day.

MR. MEIER: You say there are 100 kill days a year?

MR. COULTER: No; hauling days a year.

MR. MEIER: Well, now, you would have to haul it every day.

MR. COULTER: All right.

MR. MEIER: That makes more than 100 hauling days.

MR. COULTER: All right.

MR. MEIER: 5 times 52. 260 hauling days.

MR. COULTER: Which would come out what, about?

MR. MEIER: That would be about $25 a ton then.

MR. COULTER: All I am saying is this seems like a rather large figure for hauling the stuff away.

MR. MEIER: It will cost money. It will cost a large figure.

MR. SAMSON: Mr. Meier, we have been kicking around this inplant controls, and I would like, for the purpose of the record, to ask you if this sets out pretty well what constitutes inplant control and inplant housekeeping:

It is to be made up of the evaporation of tank waters and the mixing of the resulting stick with fertilizers, salvaging blood (including squeegeeing down the killing areas prior to washdown); screening out paunch manure (preferably from the individual department) in order to reduce the excessive amount of suspended solids resulting from mixing this material with the waste waters this thing, and this is why I say hundreds of thousands of dollars.

Whether it would be $500,000 a year, or $700,000 or $400,000, I can't tell you, but it will be hundreds of thousands of dollars a year.

Does that answer your question?

MR. COULTER: It does, yes.

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MR. COULTER: About a hundred days a year.

MR. MEIER: What is that? What is the 100 days?

MR. COULTER: This would be on hauling, assuming that you do not haul every day.

MR. MEIER: You say there are 100 kill days a year?

MR. COULTER: No; hauling days a year.

MR. MEIER: Well, now, you would have to haul it from the plant effluent; grease removal from the fat bearing waters; offal, such as meat scraps, tissue, hair scurf, hoofs, toes, et cetera, withheld from the plant effluent.

Would that pretty much define what we have been talking about? Is that what makes up the inplant housekeeping in these institutions?

MR. MEIER: I presume so. I think that paunch manure is more a matter of a method of operation than a matter of housekeeping.

Housekeeping is what you spill on the floor or what drips on the floor, what you dust and wash and scrub, and how you keep things out of the sewage.

MR. SAMSON: Thank you.

MR. STEIN: Are there any further comments or questions?

MR. SAMSON: None. Thank you.

COLONEL SUMNER: I would like to correct a figure there of Mr. Coulter's.

If you want to figure the cost of the unused portion of the plant, I think you should take only half of the plant plus the Monroe Street connecting sewer, because a great deal of this money has gone into the north interceptor, the south interceptor and the relief sewer, so that on a dollar basis, I think you get down to about five million for the unused portion.

MR. COULTER: For the unused portion?

COLONEL SUMNER: That's right.

MR. SAMSON: Colonel, Mr. Meier referred to this 70 percent removal. Do you recall his remarks about that?

COLONEL SUMNER: Yes.

MR. SAMSON: What is your judgment, your best opinion, on how quickly the plant could be put into operation in connection with the immediate operation involving the interceptors and some phases of the discharge in the South Omaha and the Monroe Street sewers, in days? I am referring now to within how many days.

MR. MEIER: Let me ask the sanitary chief.

What is your answer to that?

MR. GEISLER: Provided there are no further complications, this particular present problem, it will be about two weeks.

COLONEL SUMNER: That includes operating the Monroe Street, the south end, that complex, as well as the north on a limited basis.

MR. SAMSON: That's right.

COLONEL SUMNER: That could be nights and weekends. Is your answer the same?

MR. GEISLER: It will be the same. That will be without any paunch.

MR. SAMSON: Within two weeks?

MR. GEISLER: Yes.

COLONEL SUMNER: All right. That is a good answer.

MR. SAMSON: Thank you.

MR. STEIN: Mr. Sutton?

MR. SUTTON: Mr. Stein, we have a gentleman by the name of Yale Holland who would like to appear before us.

Mr. Holland.

STATEMENT OF YALE C. HOLLAND, ESQ.

OMAHA, NEBRASKA

MR. HOLLAND: Mr. Chairman, Conferees:

You are mistaken, Mr. Sutton. I didn't say I would like to appear before you, but I said I had to appear if I was going to appear, because I'm going out of town tomorrow.

Gentlemen, my name is Yale Holland. I am a lawyer. I live here in Omaha. I am not the attorney for any association of packers. I was employed to help the plant managers here negotiate with the city on a contract with reference to the maintenance and operation of the plant that we have been talking about, which I did, and participated in the meetings where that matter was discussed between the City Attorney, and Colonel Sumner was there, five members of the council were there, and we worked out a plan as to what the city would do and what the packers would do and could do, which was eventually reduced to writing by me.

Nobody has suggested that the writing didn't include or incorporate the agreement that was reached on that date, and it is now on the desk of the City Attorney, presumably awaiting some decision as to where we are going to come out on the things that we are talking about today. There is nothing anybody suggests that makes for any illegality or any legal question involved in that contract.

I am not here as the mouthpiece or the spokesman for the packers, but I know something about this situation.

I got a letter from Mr. Filipi inviting me here as an individual, and I came.

I referred to some of the plant managers here, and I said this pertains evidently to a meeting between governmental agencies, and I told them, "I don't think you fellows are supposed to appear." Consequently, they are not here.

If there is any blame on that, it is mine, because I didn't think this was that kind of a meeting, and I had no idea that this meeting would develop along the lines that it has developed.

So, if you want the packers here, I guess you will have to set up some different meeting. They will be glad to come, but I seriously question -- and I mean no offense -- I think this has developed beyond the realm of a conference into the second step hearing, where you have had these witnesses on the stand, and have examined and cross-examined them.

I think the packers would be willing, if they knew what kind of a meeting it was going to be, to come here with their witnesses.

But pass that, gentlemen. What do you want to do now?

I came here thinking that the City of Omaha, the packers, the people of Omaha had done a good job. I came here expecting cheers. I haven't heard any.

This thing has been in the mill here for several years, and it has been a hard drag. There is a body of people who I don't think were ever notified to come to this meeting, and that is the Chamber of Commerce. The Chamber of Commerce has been most active in getting the packers and the city to get together on a plan as to what they are going to do.

You talk about what is good for the city. Gentlemen, why not let the people of Omaha decide what they want to do about this.

They have decided. You have a plan that is all set up and ready to go. The City of Omaha, through this lease-purchase plan, without a bond issue, will build this plant, and the packers have agreed to put up enough money, by a pro rata system, depending upon the number of cattle slaughtered, a sum of money each year which they are sure will take care of the operation and maintenance of the plant.

It is all made, it is all tailored, and it is ready to go.

Now, what do you want us to do? Throw it in the wastebasket and start over again, with this land fill thing, hauling away, and all that sort of thing?

Well, I guess that can be done, gentlemen, but I respectfully urge that after all the years and all the work that has been put in on this thing, that you accept this plan, both as to plant design and as to methods of financing and the way it is going to be put over, and not bother about the fact that for a year, a year and a half or two years, there is going to be some paunch manure going into the river, when it has been going in there for 75 or 80 years without any disastrous results, so far as I can see.

If I speak forcefully, it is because I feel forcefully. I feel that Omaha, the City Council, the Chamber of Commerce, is entitled to some pats on the back for having finally worked out a solution to this problem.

Mr. Chairman, when you said that the function of the Federal authorities was to point out the objective, and that the know-how and the manner of doing it should be left to the local people, I took great encouragement from that, and I still think you were right and that we should stick to that.

Thank you.

MR. STEIN: Thank you.

MR. HOLLAND: Does anybody want to ask any questions?

MR. STEIN: I would know better than to ask you questions.

I would like to point out one thing in our law, though, and this is just on procedure.

Under the Federal law, we are obliged to invite the states. The state agency invites anyone within their state, and by law we are prohibited from doing that. This is within the state province.

MR. HOLLAND: No criticism on that. I am just telling you why there aren't any packers here.

MR. STEIN: Mr. Johnson?

MR. JOHNSON: I would just like to say that I heartily agree with you, that the citizens of Omaha, the Chamber of Commerce, and so forth, should be highly complimented and we should cheer them, but I doubt if the mayor and the City of St. Joseph would cheer them for waiting two and a half years.

MR. HOLLAND: I'm sorry; I am not asking any cheers from that quarter. I am just thinking about Omaha.

All right?

MR. STEIN: Are there any further comments or questions?

(There was no response.)

MR. STEIN: If not, thank you very much, Mr. Holland.

MR. HOLLAND: Thank you.

MR. STEIN: Your remarks are well taken, and I think, while these conferences get this way, you have to recognize that the statements here are not under oath. I don't think we have cross-examination. No one has to answer a question, but, given the American character, there are certain ways within our tradition that we attempt to get at the facts.

This is what I stated at the beginning, and I know this was a long time ago. We have to keep this problem in perspective, and I stated at the beginning that Omaha has done a very, very good job and should be commended.

It is only when you get down to the last few inches, just as the last few inches of a football game when you are going for that touchdown or a first down, when the going gets sticky.

That is why we are in here.

Thank you, Mr. Holland.

Mr. Sutton?

MR. SUTTON: Mr. Stein, we would like to call Mr. Leslie Carr from Nebraska City.

STATEMENT OF LESLIE CARR,
NEBRASKA CITY BOAT CHAIRMAN,
NEBRASKA CITY, NEBRASKA

MR. CARR: Mr. Chairman, Conferees and Guests:

My capacity is a little bit different, along the lines of St. Joseph. I am a boater and a recreation man, a member of a boat club.

I worked in developing a park and marine outlet in Nebraska City as part of the commission. I am also a member of the Municipal Dock Board.

This is a problem that we have had for a good many years. It is a fact that from upstream, of course, because the river only goes one way, there is a pollution. We had a problem quite a number of years ago, when Omaha had a problem with their garbage. They didn't have anyplace else to put it. They couldn't find someplace to put it, so they put it in the river.

We drank the water from the Missouri River down there. We were finally forced to build a complete new water system, well system, which was at a cost to us, because we couldn't handle the bacteria content in the river. It reached the point that it wasn't safe any more.

As a boater and fisherman on the river, and I have some gentlemen with me this morning as witnesses, this material sometimes will collect. We have had a problem, and I will go along with this way of handling it.

We had a problem of sewage disposal and building a plant in our city. It is built and in operation. We have spent more money per capita than the City of Omaha has.

But they talk about transporting it through the streets and being offended by odors. I am not getting into costs. I really don't have any study on this, but when they are dumping it into the river, they are also dumping it into what amounts to a street. It is almost going by my door, and I don't think it is any more offensive to me than it is to the other people here.

We would like to see a plant in operation up there such as ours and the other small towns, who probably could put theirs in operation quicker, as soon as possible, and because of the great demand of the citizens of Nebraska, two thirds of which live in the seven counties bordering the Missouri River, they like to use it for recreational purposes.

Now they are using it, and at times I wonder if it is healthful. There is water skiing on it. We had planned, for a while, a water ski show in Nebraska City on the river, and when I listened to the tons of stuff that is put into the river here,maybe it is just as well that we decided not to hold the show this year.

We have had great expense in our recreational area there, problems with flood waters, but we have a 40-acre park in operation, a marina in operation, and people are flocking to it, and they should be able to use this to their own wishes.

We would like to see this in operation just as soon as possible, and cleaned up, as we were asked to, and I think we told this same committee that we would start our plans, build our plant and put it in operation.

If we waited until after the larger cities had started their planning, we would not be done, but we are done with ours and I think it is reasonable to expect the same from the larger cities too.

If there are any questions along the recreation and fishing line, why, I will be happy to answer them, because I have lived on the river. I hunt on it during the wintertime. I grew up east of Union down here. I learned to swim in the river. I worked on the river when they first started controlling it. as a laborer. I contracted for oil and gas to contractors. I have watched it grow to where it is today, and its potential is tremendous, with the usage by more people than are using it today.

But we do not want to live on what is commonly called down our way the longest open sewer in the world. Sometimes down there another expression is used. "It's too thick to drink and too thin to plow."

Thank you.

MR. STEIN: Pardon me just a moment.

Colonel, I would appreciate it if you could arrange to stay here and not run off, because if we are going into the conclusions, unless someone else can come here to speak for the city, you can at least check us if we are going to come up with dates.

Is there anyone else here?

COLONEL SUMNER: I have another meeting, but I will see if I can arrange it.

MR. STEIN: Is there anyone else here who can speak for you, because I would hate to do this without you being in the room.

COLONEL SUMNER: I certainly agree with you. Let me come back in a few minutes.

MR. STEIN: All right. Thank you.

Are there any further comments or questions?

(There was no response.)

MR. STEIN: Thank you very much, sir.

Mr. Sutton?

MR. SUTTON: We have a gentleman by the name of T. A. Filipi, who would like to appear before us.

MR. STEIN: While Mr. Filipi is coming up, I would like to say to the industry people: Just recognize our position as public servants. This, as I think you just heard, may be another view.

We hear all sides, and I can say we get, I would not say hundreds, but pretty close to that, of letters every week. These are the pressures you get, and sometimes if you sit in our seats, you may have a different view of the problem, getting all these sides of it.

Mr. Filipi.

STATEMENT OF T. A. FILIPI,
NEBRASKA DEPARTMENT OF HEALTH,
LINCOLN, NEBRASKA

MR. FILIPI: Mr. Stein, Conferees, Ladies and Gentlemen:

At the June 1957 conference, there were eleven conclusions and recommendations. Recommendation No. 6 was that Blair, Bellevue, Nebraska City, Omaha, and Plattsmouth should provide treatment.

Gentlemen, this has been done. In addition to that, treatment is now being given to the wastes from South Sioux City, Nebraska, from Niobrara, and, with the exception of Louisville and Papillion, on the very near stretches of the rivers that are discharging into the Missouri.

Therefore, as far as our construction program, which exceeded 25 million dollars, I am glad to report to the conferees that Nebraska has fulfilled its obligation with those assignments.

A rather important phase of the program was that all the wastes that were discharged north of the Council Bluffs water intake had not been diverted, so that Council Bluffs receives water that has no untreated sewage discharge into it, with the exception of the little village of Dakota City, and it is our opinion that that community will be treating their sewage within the next year.

Therefore, in taking the assignments and conclusions and recommendations, we have fulfilled our responsibilities to that extent.

Now, as far as the actual operation of treatment, we will not dwell on that because you have heard it.

Another recommendation of the report was that we shall report progress every six months to the conferees. This has been done, and I regret very much that during the time the progress was being reported, we had always been receiving optomistic reports from the industries in the matter of removal of paunch manure, and much to the disappointment of the Nebraska Water Pollution Control Council and the Board of Health, it was finally thrust upon us on February 14, 1964, in a letter from the Mayor of the City of Omaha to the Nebraska Water Pollution Control Council indicating that there had been a complete change of program and that they are asking for an extension of time to reconsider all the details, to consider the design, and come up with a complete change of program for disposal of the solid wastes from the packing house industry.

With that in mind, conferees, we are reporting to you that with the exception of this paunch manure, all the responsibilities that were thrust upon us by the June 1957 conference were satisfied, and that plants are in operation, and I am sure that the Omaha plant will remove a high degree of the pollutants from the water in the next thirty days.

Here again, I think it is admirable that since the plant was completed in May, 1964, that two months of checkout and testing is not at all unreasonable, and that the persons responsible for the work did an admirable job in getting a seven million dollar project into operation with only sixty days of testing ahd checkout.

Thank you very much.

MR. STEIN: Thank you, Mr. Filipi.

Are there any comments or questions?

MR. JOHNSON: No questions.

MR. SAMSON: No questions.

MR. STEIN: Do you have any others?

MR. SUTTON: Let me make this one inquiry? Mr. Foster, do you want to talk for the Game & Parks Commission, or do you have anything to report?

STATEMENT OF GLEN R. FOSTER, NEBRASKA GAME, FORESTATION, AND PARKS COMMISSION, LINCOLN, NEBRASKA

MR. FOSTER: My name is Glen Foster. I am with the State Game and Forestation Commission.

I would just like to say a few words here.

The Nebraska Game Commission concurs in everything Mr. Carr said.

We do get considerable reports from commercial fishermen and boaters complaining about the pollution in the river below Omaha, and we are really interested in this problem, because the Commission has started on a long-time project of trying to get access to the river.

I think all of you realize that a big part of the population in Nebraska lives along the river. In fact, in the fourteen counties bordering the river, there is over one-fourth of the population of Nebraska, and in the eastern third there is somewhere around 70 percent of the population that can get to the river easily.

In Nebraska, most of the large water areas are in the western part of the state, and the Missouri River is practically the only large water area that has this potential for future recreation, and, therefore, we hope to obtain many more access points to the river, and for that reason, we are very anxious to see it cleaned up just as soon as possible.

Thank you.

MR. STEIN: Thank you, sir.

Are there any comments or questions?

(There was no response.)

MR. STEIN: If not, thank you.

MR. SUTTON: That is all.

MR. STEIN: At this point, we will take a break.

I think we have a problem here with the conferees wanting to complete tonight, and it being the universal experience, at least in Washington, and I expect here too, and experience throughout the country, that these things don't work once you adjourn for dinner, we will take a short recess now.

We recognize though that this does get tiring, so we are going to call for a ten minute recess now, and we want you right back.

After the states are through and before we go to the conclusions and summary, if you want another ten minute recess we will take it then, but we will stand in recess now for ten minutes.

Thank you.

(After a short recess.)

MR. STEIN: May we reconvene?

May we call on Missouri now, Mr. Freeman Johnson and Mr. Jack Smith.

MR. JOHNSON: Jack Smith.

MR. STEIN: Mr. Smith.

MR. SMITH: I would like to give our statement. Can I do it right here?

MR. STEIN: Surely.

STATEMENT OF JACK SMITH, CONFEREE,
MISSOURI WATER POLLUTION BOARD,
JEFFERSON CITY, MISSOURI

MR. SMITH: Progress in abating pollution tributary to the Missouri River is outstanding. In 1958 there were no waste treatment works serving cities and industries discharging directly to the Missouri River. Today over 98.5 percent of all persons in urban areas served by sanitary sewers either have waste treatment works in operation, plants are under construction or bonds have been voted to finance the treatment works. All major sources of industrial waste with separate outlets to the Missouri River are now adequately treated. On a statewide basis there are 264 municipal sanitary sewer systems (Metropolitan St. Louis Sewer District which served 94 cities is counted as 1). The total population of these cities is 3,095,610 (1960). Sixteen cities have sewer systems that discharge raw sewage to the waters of the state and have not yet voted the necessary bonds for treatment. The total population of these cities is 30,974. 248 cities have sanitary sewers and treatment works in operation, under construction or have voted the necessary bonds. The total population of these cities is 3,064,636.

The percent of population served by sewers and treatment, have treatment facilities under construction or financed is 99 percent.

We have received complaints on grease or tallow in the Missouri River at the St. Joseph water intake. I want to read to you at this time letters that we have received in regard to this pollution

This letter is from Mr. G. E. Bolton, Manager of the St. Joseph Water Company, and he says:

"We are vitally interested in follow up procedures to eliminate the great quantities of Packing Plant Tallow carried in the Missouri River water reaching St. Joseph, Mo.

"The heavy concentration of tallow entering the St. Joseph Water Company facilities, taking water from the Missouri River, was continuous through the late summer and continuing through the remainder of 1963 into late spring of 1964.

"Concentration of tallow entering our treatment plant was at a consistent level during this extended interval. It collected against baffles on our settling basins making it necessary to resort to skimming at times. The material leaves a greasy film on the walls of our basins and filters. It is a particular nuisance on the filters where it imparts a scum and greasy film which is extremely difficult to remove and practically impossible to cope with by normal surface and back wash procedures.

"The particles of tallow floating on the basins vary in sizes from the size of a small hen's egg to tiny pieces like grains of sand. The small particles are, of course, the most numerous and cause the greatest problems. Animal hair is present in the larger pieces.

"During prevailing high stages of the Missouri

River beginning in May, the presence of tallow in the river water has not been noticed.

"Lesser amounts of tallow have been noticed in the river water during short intervals dating back approximately two years prior to the heavy concentration occurring in 1963 and 1964."

Signed G. E. Boulton, Manager, The St. Joseph Water Company.

And now a letter from the State Division of Health, who are responsible for the public water supplies in the State of Missouri:

"Mr. Glen Boulton, Manager of the St. Joseph Water Company, called our attention to the presence of tallow in the Missouri River water. Investigations of the condition indicate the presence of the material results in coagulation problems and the deposition of greasy like material on the sedimentation basin walls, filter side walls and the sand media of the rapid sand filters.

"We have maintained rather close checks on river conditions through the operating staff of the Water Purification Plant of St. Joseph, Missouri, and have on three routine investigations, within the past few months, of the plant found the tallow material in the river water supply. Samples of the material were collected and brought to the laboratory for observation. Examination of the material indicated it to be a tallow like substance mixed with considerable animal hair. The floating material varies in size from particles the size of granulated sugar crystals to that of golf balls. The material is of specific nuisance on the filters as it is practically impossible to wash the scum and greasy film from the wash water gutters and sand media by the normal surface and backwash of the filters. The material may impart taste and odors to the water as well as being a nuisance in operation.

"The material has been observed in lesser quantity at other plants down the river but at the St. Joseph Water Purification Plant it is of specific significance.

"We request that full authority of the Water Pollution Board be exercised in abating this specific pollution to safeguard the Missouri River as a source of public water supply."

Signed "Warren A. Kramer, Chief of Water Supply, Missouri Division of Health."

Now, we have investigated all known sources of pollution to the Missouri River, and we can find no source of grease, such as has been mentioned in these complaints, and we are of the opinion that this grease is entering the river from sources other than Missouri.

I want to point out some of the steps that have been taken at St. Joseph.

The Mayor mentioned this morning that certain steps were taken by industry. We have made a rather detailed investigation of the industry in St. Joseph -- that is, the wet industry -- to see what they were doing in preparation for treatment.

Treatment is anticipated there in about one year. The plant is now under construction, and I want to cite some figures from some of the larger industries.

The Pearl Brewing Company, which was formerly the Goetz Brewing Company, on a percentage basis of what they were doing in 1959 and what they are doing today, we find that they have reduced their BOD by 28.5 percent, and their suspended solids by 24.5 percent. At the same time, their business has increased 13.8 percent.

Furthermore, the plant is making arrangements to make a change as of September 1st, in which they will dispose of all of the wet mash that will be used for feed. This is what this industry has done in preparation for treatment.

To give you another example, Quaker Oats at St. Joseph, 1959 versus 1964. They have removed 73.5 percent of the BOD, and 75 percent of the solids during this time. This is preparatory to going into the city sewage treatment plant.

The Dugdale Packing Company, which is one of the packers in the city limits of St. Joseph, has reduced their BOD by 17.4 percent, and they have reduced the suspended solids by 61 percent. At the same time, their business has increased 15 percent.

At the Seitz Packing Company, they have reduced their BOD by 17 percent, and their suspended solids by 27 percent, and, at the same time, a business increase of 50 percent.

So, this is an example of what the industry at St. Joseph is doing to reduce the pollutional load to the city sewers, and therefore to the plant and to the river.

I might say that in Missouri, all municipal waste, whether it is industrial waste, it is required and plants are designed upon the basis that industry will provide the necessary pre-treatment and good housekeeping to bring the load down to the limits that can be economically treated.

I would like to give you some figures from the South St. Joseph Industrial Sewage Plant, which serves the packing house industry and the stockyards area. This is the plant that the Mayor spoke of this morning, and has been in operation since early this year, and I think this points out some of the things that are important in this matter of pollution abatement, and this, I would like to say, has been done by industry.

They operate their own facilities, and this they have done because they believed it to be an advantage to them, and because it did provide further protection to the river.

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In March, their average daily flow was 7.4 million gallons per day for 24 hours. At this time they were recovering at their treatment plant 21,300 pounds of grease per day.

Now, I am sure you know, or you should know that each one of these industries was of the opinion that they were doing a good job of grease removal, but when they put their plant in operation, they found that at the treatment plant, 21,300 pounds of grease per day.

Now let's look at the record in June. The flow went from 7.4 to 10.8, which is approximately a 50 percent increase in flow, and the average grease recovery --

and, incidentally, they are selling every pound of this -- dropped from 21,000 pounds to 12,200 pounds.

To me this is significant. This is a very important part of pollution abatement, and it is part of the incentive to do a good job.

I want to tell you now something about how the river is being used in Missouri, and to further substantiate what the gentleman said from Nebraska City,

On July 19, 1964, Lieutenant Governor Hilary Bush launched a 72 ton excursion boat at Kansas City, Missouri. This is the first excursion boat to operate out of Kansas City in recent years.

The Missouri Conservation Commission and the Corps of Engineers have built some boat access points on the Missouri River, and additional access points are planned.

The Missouri Water Resources Board desires maximum use made of the Missouri River. Pollution prevents full utilization of the river. The proposed Lewis and Clark Highway will bring many more people near the Missouri River. Pollution detracts from the beauty of the river.

There is increased use of the river by barge lines and individual boaters. It is imperative that the

Missouri River be cleaned up as soon as possible.

We request that additional steps be taken to reduce grease, tallow and other materials of a pollutional nature from the Missouri River above the St. Joseph intake at the earliest possible date.

This concludes our statement.

MR. STEIN: Thank you, Mr. Smith, for a very excellent and comprehensive statement.

Are there any questions or comments?

(There was no response.)

MR. STEIN: I just want to underline one point in Mr. Smith's statement, and I don't think that has been brought out before.

What you have in the cities and towns along here is that they are river towns. This is what makes them unique and different from the other towns in the area, and from towns anywhere else. This is the heart and really creates the character of your communities here.

During the major polluted conditions of that river, you almost had to turn your face away from the Missouri River because things were so bad, but now with the regulated flow and the cleanup of it, you will find that more and more the river will be used as a recreational device.

I think you will find that in Nebraska, for example, or in any of these states, the population is where the river is, and if you have to travel for water sports, to go to the western part of the state is quite a distance. If you have it at your doorstep, this is a tremendous advantage, and evidently this is happening.

Thank you.

Does Mr. Johnson have anything to say?

MR. JOHNSON: Nothing at all, Mr. Chairman.

MR. STEIN: Thank you. If not, may we go to Kansas.

Mr. Mayes.

STATEMENT OF J. LEE MAYES, CONFEREE,
KANSAS STATE DEPARTMENT OF HEALTH,
TOPEKA, KANSAS

MR. MAYES: Thank you, Mr. Chairman.

I have a short prepared statement, and I would like to add a few comments at the end, if I may. If that is all right, I first will read this, and then add a comment.

MR. JOHNSON: We can't hear you.

MR. STEIN: Will you speak up, please? The other conferees cannot hear you.

MR. MAYES: Yes.

In June 1957 at the first session of this conference, the conferee for the State of Kansas pointed out the State of Kansas was concerned about pollution of the Missouri River by untreated municipal and industrial wastes from the Omaha area. While we are advised that many of these wastes are now being treated, the State of Kansas is still concerned about remaining untreated wastes originating in the City of Omaha.

The cities of Atchison, Leavenworth and Kansas City, Kansas all derive their water supplies from the

Missouri River below Omaha. Bacteriological samples of Missouri River water taken at these water supply intakes still show coliform densities considerably in excess of the recommended maximum densities for raw water to be used for drinking water supplies when a modern, complete treatment plant is provided. The finished water produced at the Atchison, Leavenworth and Kansas City, Kansas plants meets recognized standards for bacteriological quality; however, high coliform densities in the raw water impose an extra burden on water treatment processes and increase the hazard to the consuming public in case of malfunction or a breakdown in water plant operation.

While our chief concern is the protection of the Missouri River against pollution which interferes with or degrades the quality of the water for domestic use, the Missouri River is also a major source of industrial water supply in Kansas. In addition, it serves other important uses such as fishing and recreation. The State of Kansas believes that these uses should be protected by treatment of all municipal wastes, and industrial wastes similar in nature to municipal wastes, in accordance with the Water Quality Objectives adopted by the Engineering Section of the Missouri Basin Health Council.

J. L. Mayes

The people of Kansas are attempting to do their share in the cleanup of the Missouri River. The main stem cities of Atchison,and Leavenworth, Kansas placed primary sewage treatment plants in operation in August 1962 and January, 1963 respectively. The city of Kansas City, Kansas has let contracts for eight interceptor projects during the last two years, and final engineering plans and specifications have recently been completed for the sewage treatment works. The treatment plant is expected to be placed under contract late this year and the remaining interceptor works will follow in 1965 and 1966. These treatment works are being built on the good faith that large waste sources upstream will also be brought under proper control.

I should like to add to this formal statement a few comments on reports that we obtained in June concerning grease and tallow in the Missouri River at Atchison and Leavenworth.

At both places, and particularly they reported during the winter months, they have trouble with grease and tallow on their filters, and at Atchison it reached a peak in April of this year, at which time it was necessary to skim their sedimentation basins, at one point to shut it down and wash and clean the walls down because of grease balls largely of pea size.

Also, we have reports during this same period from fishermen at Atchison and White Cloud of their nets getting fowled with grease and tallow.

Thank you, Mr. Chairman.

MR. STEIN: Thank you very much.

Are there any questions or comments?

(There was no response.)

MR. STEIN: We will now call on Iowa.

Mr. Schliekelman.

STATEMENT OF R. J. SCHLIEKELMAN,
CONFEREE, IOWA STATE DEPARTMENT
OF HEALTH, DES MOINES, IOWA

MR. SCHLIEKELMAN: Thank you, Mr. Chairman.

I will present two brief statements. The hour is getting late.

As has been mentioned before, the conferees at the conference on pollution of interstate waters of the Missouri River, Omaha, Nebraska area held June 14, 1957, concluded that pollution of interstate waters subject to abatement under the Federal Water Pollution Control Act was occurring in this area. They further concluded that the discharge of untreated sewage and industrial wastes from the Iowa communities of Carter Lake and Council Bluffs together with other Nebraska communities was the cause of the pollution. The conferees recommended that Carter Lake and Council Bluffs, Iowa, along with the Nebraska communities, provide adequate treatment for their wastes prior to discharge.

The City of Council Bluffs was certified for a Federal construction grant by this Department and the formal dedication of the interceptor and outfall system and sewage treatment plant took place June 1, 1963. The City of Carter Lake, Iowa, which is actually on the Nebraska side of the Missouri River, contracted with the City of Omaha for treatment of its wastes. A Federal construction grant was certified for this community by this Department and the interceptor and connection of the Carter Lake sanitary sewer system to the Omaha, Nebraska system was completed in June, 1963.

We also have a few comments from the statement of the Iowa Conservation Commission. This reads as follows:

"At the first conference pertaining to pollution of the Missouri River below Omaha, the Iowa Conservation Commission presented a statement of concern regarding the need for clean recreational waters in the Missouri River in the Iowa-Nebraska reaches below Omaha.

"The concern and need expressed at that time has existed to this day, and they will continue until this pollution is stopped.

"The Iowa Conservation Commission is hopeful that prompt action will be taken to abate the nuisance of pollution below Omaha."

That concludes the two statements.

MR. STEIN: Thank you very much. Are there any questions?

How is that Council Bluffs operation working?

MR. SCHLIEKELMAN: Very well. I haven't seen it myself, but it has been operating very well. The people are very proud of it, and there are some very fine editorials which were published regarding the operation of the sewage treatment plant.

MR. STEIN: Again, I think that this points up one of the problems we have had, where places like Council Bluffs and a lot of the other communities said they could start later and get finished before Omaha, and I guess they have all done it.

We always thought Omaha was the olive in the neck of the bottle, and when the big operation went all the other ones would go. We are now faced with a situation where all the other smaller communities have gone ahead and Omaha has remained behind, and this is the thing we are really going to have to look at.

That concludes the States' presentations. Do you want to go ahead and see if we can have some discussion and summary right now? Does that meet with your approval?

MR. SUTTON: We may not agree with your conclusion, though.

MR. STEIN: It is your conclusions. I am not making the conclusions. I am the Chairman. I have the easy job, you see. You have to make the conclusions.

All right. I think we could make some statements possibly that could be agreed upon. One is that cognizance is taken by the conferees of the significant progress being made in the area in the abatement of pollution by the agencies concerned, in particularly the towns of Bellevue, Blair, Decatur, Millard, Nebraska City, Niobrara, and South Sioux City, Nebraska, and Council Bluffs, Iowa. All these have plants in operation or under construction.

I think we can give Omaha credit too for having completed the interceptor sewers and the two treatment plants. Omaha has made a heroic effort in keeping this, the largest of the projects up here, on schedule or reasonably on schedule up to now, particularly in the light of that early reverse they had at the polls in the bond issue.

There is no reason to believe that Omaha's facilities are not proceeding according to plan. I think the one remaining problem is the disposal and treatment of solid wastes from the packing houses, particularly paunch manure.

The question that the conferees will have to determine here is whether the paunch manure will be treated by some sort of facilities such as are recommended by the consulting engineers and the City of Omaha, or whether some other method of disposal of paunch manure will be available.

From the standpoint of the State of Nebraska, how do you feel about this? Do you think we should go on, or do you want to hear from the other states?

MR. SUTTON: I think, as far as the State of Nebraska is concerned, Mr. Stein, we are quite happy with what Omaha has done. We are a little dissatisfied that it has taken this long.

I don't know whether I speak the consensus of opinion of Dr. Rogers and Mr. Samson or not, but if they can get this thing going as they have indicated this afternoon, why, it would be quite satisfactory as far as I am concerned.

I would like to see that South Omaha interceptor used as much as it could be, and, at the same time, relieve as much pollution to the Missouri River during this interim term of two and a half years we are talking about as possible.

MR. STEIN: Mr. Sutton, I would agree that this is the watershed that, in a sense, we have to pass. I think you have put your finger on this.

I would assume that if Omaha went ahead with this, there would not be a problem in their getting the approval of the State agency on that?

MR. SUTTON: I think not.

MR. STEIN: I think we have to ask all the other conferees if they would agree that in view of the situation, we are to go ahead and try to do what we can with the plans from Omaha.

How do you feel about that?

MR. MAYES: I'm sorry, Mr. Stein?

MR. STEIN: We have two problems here. The proposal from the Nebraska conferee is that we at least accept the general proposition that Omaha will build additional treatment facilities, put the paunch manure into the sewers and provide waste treatment for that, with the understanding again that we will try to see that the best possible job is done in the interim -- and we can get into the details of that later -- and also with the understanding, and I think we have to face this, that, as Mr. Sutton pointed out, he was disappointed, and possibly the other conferees are too, and that if this had to take this turn, it should have taken this turn before and we should not be faced with another two and a half years for this to happen.

Are we prepared to go along and explore that possibility for the conferees, that Omaha will dispose of packing house waste, including paunch manure, through the sewers and provide additional waste treatment?

MR. SAMSON: Before you come to that problem, why don't you resolve the availability of the use of the entire facility as far as is expedient immediately, and I mean within a couple of weeks?

Let's get that out of the way first.

MR. STEIN: Just a moment, John. I think that is a detail that we can come in with here. The main point is, is this whole plan the acceptable plan? This is the key decision.

The question of using this in the interim period or making this available to the maximum extent is a problem that we will get into on the dates.

As I see the problem here, Omaha has presented us with a plan. Presumably they have an operable treatment plant now that could be worked if it were used as designed at optimum efficiency in the North side, and the South side if they kept the paunch manure out. The only problem is, are they going to keep putting the paunch manure in? The first problem is that.

The question for the conferees is whether we can go along with that.

MR. SAMSON: I will yield to Dr. Rogers here. I am quiet on the subject.

DR. ROGERS: I don't see what alternative we have. We have heard lots of testimony today from the people in Omaha saying that this is feasible, and it is the only feasible plan that they have come up with.

We have gone along with them this far. We are very happy with the progress that they have made, and we are slightly disappointed over this temporary setback, but we are sure it will be only temporary, and we have the utmost faith that they will solve their pollution problems given sufficient necessary time to do so.

I don't see what alternative we have other than to give them an opportunity to do this.

MR. STEIN: You very well may be right, Doctor.

We are faced with this proposition, and this is a very difficult one in Federal-State governmental relations. This is the most difficult problem of our time, where one agency or instrumentality of government, and here the State and Federal Governments came up with a time schedule which was supposed to be met and another instrumentality doesn't meet it, and then you are faced with the alternative.

Obviously, I think we come to Dr. Rogers' proposition, do we have a reasonable alternative?

Is this agreeable to you people? I don't know how agreeable it is, but I don't know what else to do.

I think up to this point on this proposition, we haven't gotten the conferees to agree on the dates. I would like to work backwards, and if I have made any mistake on the dates, you can call it to my attention.

By the way, John, you have raised a very important point that we will get to on that, but let's see if we can block this out.

In order not to create any embarrassment, you say the new facilities will be in operation by December, 1966. Is that the last day of December, or do you want to make it January, 1967?

COLONEL SUMNER: I'll settle for December, 1966.

MR. STEIN: Let's have a date certain.

COLONEL SUMNER: All right, let's have a date. The 15th of December.

MR. STEIN: December 15th, 1966, the plant will be in operation.

MR. JOHNSON: This will be a wonderful Christmas present.

MR. STEIN: All right, this will be a wonderful Christmas present.

Is this agreeable? Let's block this out and see if we can get the dates. Let's go to the next date backwards.

When did you say you would be under construction, December, 1965 or July, 1965?

COLONEL SUMNER: No. Let's see -- say July 1st, 1965.

MR. STEIN: The 1st of July of 1965, you will be under construction?

COLONEL SUMNER: That's right.

MR. STEIN: All right. When will you begin working on your plans and specifications?

COLONEL SUMNER: They are being worked on now, of course, to the extent that -- we are not able to go any faster than we are going now, but I would say in a matter of 45 days I think we ought to be ready to go to the next phase, which will be the detailed drawings, provided that the regulatory agencies approve of what has been done.

MR. STEIN: This is what I am getting at. When do you need your approval from the regulatory agencies?

COLONEL SUMNER: I'll have to ask Mr. Bolton.

MR. BOLTON: We would be shooting for May 15th, 1965 on approval of the Federal agencies, or I mean of regulatory agencies, if we aren't putting you on the spot that much.

The first one would be by May 15th for approval of the regulatory agencies.

MR. SAMSON: You are aware of the statutory provision in Nebraska on the submission of plans and specifications for the Water Pollution Control Council?

MR. BOLTON: Yes, sir.

MR. STEIN: You are saying that you will have those plans submitted for approval by when?

MR. BOLTON: We hope to have the approval of the regulatory agencies by May 15th, 1965.

MR. STEIN: May 15th, 1965?

MR. BOLTON: Yes, sir.

MR. STEIN: Can we put it this way: That you will submit these plans sufficiently in advance to get approval by May 15th, 1965? Is this agreeable?

DR. ROGERS: We don't know.

MR. BOLTON: There is no way of knowing. It takes time, that's right.

MR. STEIN: How long does it generally take? I don't want to put just a date here. This is the point. Obviously you are not going to tell if you get this approved or not, but the point is you have to give this to Mr. Filipi enough in advance so that you are going to give him an opportunity, if he does the job diligently and he takes it up with the Council, so that they can put a stamp on this by May 15th.

How much leeway time do you give him?

MR. BOLTON: About thirty days, but on this one we have cooperated with everybody, and even your group, showing we want to work closely together, so it will not take too much time.

MR. STEIN: All right. Can we say that you will have these plans in to the agency for approval by April 15th?

MR. BOLTON: Yes.

MR. STEIN: April 15th, absolutely. All right.

MR. BOLTON: If we get the go-ahead.

MR. STEIN: All right. Let's go then to the next point, unless you have an interim date, but I have this date here.

If there is any question here from the conferees, let me hear it. The next point is that the City Council will arrange its financing and complete its arrangements with the industry, and pass the necessary resolution for municipal financing by September, 1964.

Is this agreeable?

COLONEL SUMNER: I am sure it is, if that is necessary that it be done by September, 1964.

MR. STEIN: No. What do you think is the date? I think we are going to have to have a check date.

COLONEL SUMNER: There was some statement today about 90 days. I think that was Mr. Trustin's statement.

MR. STEIN: 90 days, all right. Do you want to make it November 1st, 1964?

COLONEL SUMNER: Yes.

MR. STEIN: All right.

COLONEL SUMNER: We will try and beat it.

MR. STEIN: All right, you will have this November 1st, 1964, including the arrangements with industry and the municipal financing, and obviously all the necessary legal work and resolutions appurtenant thereto.

All right. I think this is one package. Let me get this before we get into the point that Mr. Samson brought up, and put this out and recap in perspective.

The City will go ahead with plans to provide for the collection of solid wastes, including paunch manure, or solid wastes that they specified, including paunch manure, from the packing houses for treatment, or for collection and treatment, the entire facility to be in full operation by December 15th, 1966.

I think I am correct.

COLONEL SUMNER: You are.

MR. STEIN: Thank you.

Omaha will arrange municipal financing and arrange with industry for the industries' share of the financing, including the appurtenant legal work, by November 1st, 1964.

Omaha will submit plans to the Nebraska State agencies for approval, final plans, by April 15th, 1965.

The facility will be under construction by July 1st, 1965.

COLONEL SUMNER: I think that we really mean the contract awarded by July 1st.

MR. STEIN: You want the contract awarded?

COLONEL SUMNER: Yes.

MR. STEIN: Fine. Contract awarded by July 1st, 1965. Certainly that is a reasonable amendment.

MR. SUTTON: Thank you. May I ask this:

Colonel, I think that we would probably need a basis of a design in the next 30 days of what you intend to use; isn't that right, Colonel Sumner?

COLONEL SUMNER: In 30 days or so, we should have a pretty good understanding of what we have in mind, yes, and what we plan to do. It may take another 30 days to complete the report, but I would say in 30 days we will.

MR. STEIN: Let me ask you again. I don't want to put you on the spot, but could we say that within 60 days you will advise the Nebraska State agency and submit a written preliminary report, at least?

MR. SUTTON: By September 11th. That's when we meet.

MR. STEIN: By September 11th, 1964, this will be submitted, preliminary plans to give an indication of this.

I also have some other points where I think the September 11th date can come in. This is the point I think Mr. Samson raised.

I wonder whether, by September 11th, a report could be submitted to the Nebraska Council and to the other conferees to indicate that maximum utilization be made of the existing facilities, and what plans you have to take to insure that the facility you are going to open within a few weeks, or have taken, will reduce the waste load to the maximum possible?

COLONEL SUMNER: We intend to make the report to them at that time, and do what you said. It is not going to change the grease problem.

MR. STEIN: Pardon?

COLONEL SUMNER: It is not going to change the grease problem.

MR. STEIN: No. This wasn't to change the grease problem. By the way, maybe we should get at that.

Mr. Samson raises the point that this report should come before September 11th, within the next 20 days.

MR. SAMSON: Your statement was that it would be in operation in 20 days if there wasn't an unforeseen catastrophe that occurred.

MR. STEIN: I am thinking about the report.

COLONEL SUMNER: What do you want?

MR. STEIN: Obviously, you are going to run the north end of that plant hopefully at optimum capacity unless you get some gremlins in the works, which happens sometimes with new plants, but in the south end of the plant which is going to be fed by the South Omaha interceptors, unless you make some special arrangements, you are not going to be able to take the ordinary municipal wastes carried by that, or as much of a portion of the paunch manure as you can take.

Mr. Bolton had some plans. Perhaps the bypassing could be done on the higher portion and the heavier stuff on the bottom could get in, or perhaps you could run this on an hourly basis and allow some material in.

I am just throwing these out as possibilities. I think the notion of making the maximum use of that facility is what the Nebraska State agency and the other conferees would like to see.

MR. SAMSON: I believe their sanitary engineer stated that the south facility together with the interceptors could be put in operation within 20 days, with the exception of some arising out of the discharge of paunch manure and those heavy wastes out of the packing houses; isn't that right?

MR. BOLTON: Yes.

MR. SAMSON: So there is no reason why that couldn't be worked out.

MR. CLARE: Mr. Chairman, there are some dates being set here before the transcript and perhaps a summary is available.

Could we have a letter or a memorandum from your office summarizing these dates and deadlines for all the conferees?

MR. STEIN: Yes, you can, but we haven't summarized this last date here.

I think this last one is to come up with a plan that will put into maximum operation the new facility and minimize the load put into the river.

When can that be submitted? Is 20 days reasonable?

COLONEL SUMNER: To submit a report?

MR. STEIN: To put it in operation.

COLONEL SUMNER: We are talking about a very short time -- you know, 20 days from today.

MR. STEIN: I know.

COLONEL SUMNER: And some other things may develop. We've got to understand that. We are willing to take a deadline and try to meet it, and we will do it if everything goes right.

MR. STEIN: Let's put it this way: I recognize this, and I want to throw this out to the conferees. I have been through this in trying to get a new plant operated. Once you design it over the years, you just don't press a button and the plant runs.

I would suggest, if it is agreeable to you and to the conferees, that by your September 11th meeting, when you are getting this other plan, that in addition you come in to indicate what you are doing to have the maximum amount of waste treatment in your new facility, and if you have further plans to step it up or still get better, that this would be presented to Nebraska.

I would also suggest that this information be given to the other conferees, because I know it is vital to them for their comments and suggestions.

MR. SAMSON: You say a report on September 11th. I think that we should be advised that it is in operation on September 11th.

MR. STEIN: I agree with you, Mr. Samson. If I haven't made this clear, let me try to make it clear.

By September 11th, the people from Omaha will tell you what they have done to maximize this. However, again I say, on the basis of sad experience -- I have been beaten over the head for years -- by September 11th, even though they may have been running this for a month or two or three, they may think they are reducing this by

20 per cent or 30 per cent, to throw a figure at you, but with a few changes, in another two or three months they will have that 30 per cent up to 40 per cent.

Not only should they tell you what they are doing, but on the basis of their experience, if they have plans for further improvements, to put that before the board.

I am all for these people in Omaha, but if they are running that plant by optimum efficiency by September 11th, my hat off to you. I'll recommend you for a medal.

I think we are going to have both of these problems. They will have to tell what they are going to do in their plant towards improving it.

DR. ROGERS: Mr. Chairman?

MR. STEIN: Yes.

DR. ROGERS: We are now on a six months reporting schedule. Is this setting up a new schedule for reports now that we have to make?

MR. STEIN: No. I think once we finish the first reports, the six months schedule will continue.

Now, I think the key reporting dates are the reports here. I think we should get a report after your September 11th meeting, and I think the subsequent reports should come by whenever there is a significant date we mentioned here, to see if these dates are met.

DR. ROGERS: Then the answer to my question is "Yes"?

MR. STEIN: Yes.

DR. ROGERS: In addition to the six months regular reporting schedule, you are asking us to make a report to all the conferees on all of the dates that have been set here?

MR. STEIN: In lieu of the six months dates, because I think this supersedes it. It is in place of it.

DR. ROGERS: I would like to enter an objection to that.

I think if we report to all the conferees on a regular six months basis, we can include everything that has occurred on these specified dates in these regular six months reports.

I don't see the necessity for setting up a new schedule. That's why I brought the question up.

MR. STEIN: I want to know how the conferees feel about this. I would imagine they would want to get this report on September 11th pretty rapidly.

MR. JOHNSON: Yes.

DR. ROGERS: Maybe we can send them a clipping.

MR. STEIN: Are you worried about writing the reports, sir?

DR. ROGERS: I am not, because Mr. Filipi has to do it.

MR. STEIN: Are you worried about that?

May I make a suggestion about this?

Off the record.

(Discussion off the record.)

MR. STEIN: Back on the record.

DR. ROGERS: Mr. Chairman, your suggestion that Mr. Clare report to the conferees of the compliance or non-compliance of these suggested dates certainly meets with our approval, if it does with the other conferees.

MR. STEIN: Right. Do any of the conferees have anything to say about this?

MR. SCHLIEKELMAN: Mr. Chairman, does that apply only to Omaha then? How about Iowa? Are we now exempted? Are we in the clear?

MR. STEIN: Haven't you completed?

MR. SCHLIEKELMAN: Yes. We are now in the clear.

MR. STEIN: I think that this is what we should do.

In conjunction with Mr. Clare, we should write you, for the communities which are in compliance, a letter saying that as far as we are concerned you are in compliance, and that will stop your reports on those cities.

As a matter of fact, this can stop your report on most of your cities in Nebraska, that big list, if they are completed. If the plant has been completed, you have had your shakedown period and it is operating properly.

In other words, although sometimes people don't believe this, we are as anxious to disengage as much as you are anxious to have us go home, and we would be happy to write you those letters and terminate our activity in there.

Are we set? Are there any further suggestions or comments by the conferees?

MR. SMITH: Murray, are you going to preface this that you accept this with reluctance?

MR. STEIN: I wouldn't say that on the record, no. No, sir, I wouldn't. You can say that if you want to.

MR. SMITH: I think we have to.

MR. JOHNSON: I think we have to.

MR. STEIN: All right. Is that the sense of the conferees? Is that your sense too? This has been proposed by Missouri.

MR. SAMSON: These suggestions I think ought to be discussed by the conferees. I mean, Jack has some ideas and Freeman has.

MR. MAYES: Mr. Stein, I would say, as far as we are concerned, we feel pretty much as Jack just mentioned.

We feel a little reluctant about it, but there doesn't seem to be much alternative to accepting this approach.

MR. STEIN: He suggests that in our report we put down that this is accepted with reluctance.

Do you think we should do this, or are there any other suggestions from anyone?

DR. ROGERS: I would be amenable to that suggestion. Certainly, the remarks that we have made have indicated that we were somewhat less than perfectly well satisfied with what has been done, and accept the realities.

MR. SCHLIEKELMAN: I can't agree with that statement. I think we are at a situation where there have been long delays, maybe some unreasonable delays, but under the present circumstances I don't think we can do very much about it.

Just call it acceptance with reluctance, and let it go at that.

MR. STEIN: All right. Is that the consensus?

MR. JOHNSON: Certainly not with enthusiasm.

MR. STEIN: I don't say you see an overwhelming enthusiasm up here now.

MR. JOHNSON: I'm sure we will hear from our people down there about this.

MR. STEIN: You have heard already.

MR. JOHNSON: We will hear more though.

MR. STEIN: I know it.

I would like to point this out though, and this is a real problem in American government. I agree with you people, and this is why I say you industry people don't quite have it so good.

It is pretty well established and relatively easy for a Federal regulatory agency to regulate industry or a private individual and make it toe the line and meet a schedule, or assess penalties if that is not done.

However, when another instrumentality of government does this it is not so easy, and the reason is, and you saw it here today, this is not a question where it is easy to assess responsibility.

The situation evolves out of a very complex set of issues, and this is not easy to do from the point of view of people who have to administer the law.

I say this in defense of this. I wouldn't say this is a kind of sell-out or a whitewash or anything. I think Omaha has done an excellent job.

We have to face the reality that we are doing business in the most complicated area that I know of on domestic policy in a social-legal context; that is, when instrumentalities of government here, like the states and the Federal Government, are asking another instrumentality of government to do something and they don't quite comply at that time.

This is one of the hardest things to do. This is why the Supreme Court said we have to have the conference. In the alternative you have to face this, and it is not very easy.

I suspect as our government or society becomes more complex, these are the kinds of decisions we are going to be increasingly faced with, unless someone comes up with another device, as we have in other fields. This is a different kind of determination and decision, and that is why we are here.

I ask you not to go away with dismay, because I do think we have made progress. I do think we have a schedule which is reasonable for the city. And I think the course is going to be clear for everyone if this schedule is not adhered to, and I really do think that

Nebraska and the good people here will be looking at this.

Are there any other comments or questions?

MR. SMITH: Mr. Stein, there is one thing that bothers me.

They talked about paunch manure and what they are going to do with that. Basically, our problem is what are they going to do with the grease? What is going to happen to the grease?

MR. STEIN: Just a moment. I think the phrase I used was "packing house solids, including paunch manure."

Do you want to specify "including paunch manure and grease"?

MR. SMITH: I just want to be sure we understand that. They are going to remove the grease.

Is this facility that the city is going to build going to be a grease removal unit?

MR. STEIN: Colonel?

COLONEL SUMNER: The plant that we have now has facilities for removing grease. The problem of course is that the grease comes in at the same time the paunch manure does, and until we have solved the paunch manure problem, we will not have completely solved the grease problem.

We are removing grease, but we don't get it all.

MR. STEIN: Colonel, by 1966, when this goes into operation, will we have removed the grease problem too?

COLONEL SUMNER: Yes.

MR. STEIN: All right. Can we say, for the purpose of the summary, "packing house solids, including paunch manure and grease," so that will be clearly understood? All right, we will amend it.

As you know, I have been up and down this river gathering evidence, and I might say, on the basis of personal experience, that grease is a visible absolute plaguing nuisance in pollution. This is what the people see. This is what they can feel in their hands, and it is not very attractive.

COLONEL SUMNER: Right.

MR. SMITH: Do we understand that the packers do not plan to do any grease removal, any more than they are doing right now?

COLONEL SUMNER: They plan to remove the grease, and they, to a considerable extent, are doing it now. They don't get it perfectly, and the plant is designed to take out a certain percentage.

Do you want to tell them what the percentage of the grease is? I know it is about 20,000 pounds.

MR. BOLTON: The plant is designed to remove, based on coming into the plant, 22,000 pounds of grease per day.

It will handle, of course, more than that, but it is designed for 22,000. The grease in the sewers, as a result of the analysis, is about 67,000 pounds. That is before in-plant cleanup.

MR. SMITH: What are you getting now in the sewers in Omaha? How much grease?

MR. BOLTON: I don't believe I have those figures available.

MR. SAMSON: Well, I have the report for 1958.

MR. BOLTON: That is what I was looking for.

MR. SAMSON: The South Omaha inlet grease measured 19,990 pounds, evaluated 2,806, designed 4,800; and I have the Monroe Street outlet: Grease 53,880 pounds measured, evaluated 41,729, designed 45,736. So if you add the South Omaha outlet together with the Monroe Street outlet in 1958, and I suppose it is about the same now, there is approximately 75,000 pounds of major grease.

MR. SMITH: Per day?

MR. SAMSON: Per day.

MR. SMITH: Coming into the Omaha sewers.

MR. SAMSON: From the South Omaha outlet and the Monroe Street outlet.

MR. BOLTON: It is improved now, of course.

MR. SMITH: What is it now?

MR. BOLTON: I don't have the figures.

MR. SMITH: Have you got an estimate?

MR. BOLTON: No.

MR. SAMSON: I think this is real important. I think you are raising a really important question.

MR. STEIN: Could we ask you again on this to make a report for transmission to the conferees on the grease problem and on the grease removal? Could we incorporate that?

COLONEL SUMNER: Yes.

MR. STEIN: How soon can that be forthcoming?

COLONEL SUMNER: Of course, the problem, as you know, is that right now we do not take this sewage through the plant, and we won't.

MR. STEIN: I understand.

COLONEL SUMNER: But there is in-plant removal of grease.

MR. STEIN: I understand that, but with that could we get a report to the Nebraska agency, and this should not take too long, for transmission to the other conferees on your estimates on the grease removed?

Then at the September 11th meeting, when it is coming in, you can get your announcement of what you have done and the prognosis that they can do at the same time.

Do you think this is possible?

COLONEL SUMNER: Everything is possible, I think.

MR. STEIN: I know, but what I am trying to do is this: I think Jack has asked a very legitimate question here that they are entitled to an answer to. I would like to wind this up, but make some provision to get him his answer.

MR. BOLTON: I am not clear. I thought you gave a two-phase question. I wasn't sure.

MR. STEIN: No. The first point is I don't know how long he wants to wait for the answer.

MR. BOLTON: Right.

MR. STEIN: The first part is within a week or so, it seems to me that you should be able to get a letter to Nebraska for submission or transmission to Jack, and with carbons possibly to the other conferees, on an estimate of how much grease is being reduced now.

MR. BOLTON: Is the question how much is going into sewers? That's two different things.

MR. STEIN: No, but you had this estimate in 1958.

MR. BOLTON: There is a difference between that and now, of course.

MR. STEIN: A difference between that and now. By the way, I don't know that that is going to satisfy him.

MR. BOLTON: That is the reason that we have to have a special sampling program on that.

MR. STEIN: Can we supply this for Mr. Smith? This is the first question. Can you get him his information on the grease?

COLONEL SUMNER: You want to know the difference between 1958 and now, and then you want to know in September whether there has been any change in that?

MR. STEIN: Mr. Smith, will you tell him what you want to know again?

MR. SMITH: I think we are interested in how much grease is going in now, and then what is your plant going to take out?

MR. SAMSON: That is right.

MR. FILIPI: We will ask for that in the report if it isn't in there.

MR. SAMSON: Paul, didn't you say the treatment facility down there removed 20 per cent of the grease? Isn't that what your testimony was?

MR. BOLTON: More than that. More than that.

You see, we are on paunch manure.

MR. SMITH: We don't want to make an agreement to something we don't agree on.

MR. STEIN: I am asking you.

MR. SMITH: We are not agreeing on this.

MR. STEIN: You are not agreeing on this.

What we are asking for here I think will go with the maximum use of the plant, or the maximum reduction of the grease.

In other words, if the conferees believe that the amount of work is not being done on this, I have no doubt that they can and will call it to the attention of Nebraska and will get results.

If you don't like the results there, you can ask us, but I don't imagine it will come to that.

If these questions are bothering you now, again let's look at this with the alternative that we have to deal with, on the question of the maximum use of that new facility and the question of the reduction in grease.

You are going to have to have a technical report that you can look at and be satisfied. If you are not satisfied, the point is that you should work through Ted Filipi to see what he can do with them.

If that doesn't work out, you can always call us up.

MR. SMITH: I didn't want to say that as a conferee we are agreeing to all this.

MR. STEIN: No. We are just asking for a report on that.

MR. SAMSON: I think Jack doesn't want to go along with any phase of this unless it is all settled. That is my understanding.

Isn't that right?

MR. SMITH: We don't know if it is going to make any change in the grease.

MR. JOHNSON: We don't know what it will do.

MR. STEIN: You mean when they complete this works?

MR. SMITH: Yes, what they are going to do when they put this plant in operation.

MR. STEIN: I thought I asked that question and got the answer. Let me see if I did.

As I understand this, on December 15th, 1966, when this whole thing is in operation, there will be a substantial reduction in removal of paunch manure and grease; is that correct?

MR. BOLTON: Yes.

MR. SMITH: What is "substantial"?

MR. BOLTON: The original program, Mr. Smith, may help you on the evaluation. I am going back to the study the packers put in.

First, let's go back to the analyses. These are extracted; right? That is the standard criteria. About 75 per cent of that is recoverable. Then if the packers put in grease removal, we figured they could get about 70 or 75 per cent of that.

What comes on down through the plant then would amount to about 22,000, and we would recover about 70 per cent of that. Therefore, we have not only that, but we can hold the grease down in the plants.

MR. SAMSON: Have the small packers agreed to do that?

MR. BOLTON: I can't answer that. That's the reason I will now turn to the Colonel.

COLONEL SUMNER: I have a letter from a majority of them, but that is an enforcement problem that the city will have to do.

MR. JOHNSON: Are they going to do it?

COLONEL SUMNER: That is the basis on which we are proceeding. I have written every one of them and told them of this paunch manure removal program being based on the assumption that they themselves would remove the grease, the blood, the bones, the hair, and so forth, and I have replies from a majority saying "Certainly."

I guess there are four or five that have not replied, but we can take care of that.

MR. SCHLIEKELMAN: Do you have any limit on the amount of suspended solids or grease contents which will be accepted by the plant or from the industries? I think that would be the way to handle it, because your plant is actually designed for suspended solids and it can't exceed that.

MR. BOLTON: Are you now speaking pounds?

MR. SCHLIEKELMAN: I think pounds is the way to do it.

MR. BOLTON: It will be met on the pounds.

MR. SCHLIEKELMAN: I think your pounds is actually what you are worrying about in the digester.

MR. BOLTON: In the river all the way through, yes.

MR. SCHLIEKELMAN: I don't know if there is any limit which should be set up on going to the river or not.

Do you have anything on that, Jack? Do you have any suggestions?

MR. SMITH: Well, I don't know that I have a specific suggestion on that, but what concerns me is the control at the source of it.

This is the point I don't understand, whether or not there is going to be no control by the City of Omaha of grease and any other thing they want to put in they can put in.

Is that right?

MR. STEIN: No.

MR. SMITH: Are they controlled by ordinance as to what they can discharge?

MR. STEIN: Not yet.

MR. SMITH: Are they going to be?

COLONEL SUMNER: I think I can answer that "Yes."

MR. SAMSON: Colonel, there is no ordinance here on the statute books or on the ordinances similar to the ordinance in Kansas City on the strength of the discharge and the quality of the discharge into the treatment plant, is there?

COLONEL SUMNER: There is an ordinance. I will see if I can get this.

MR. STEIN: Let's see if we can get this.

As I understood you, Paul, you indicated that there would be 22,000 pounds of grease coming down after removal at the plant?

MR. BOLTON: Yes.

MR. STEIN: You would remove 70 per cent of that?

MR. BOLTON: Yes.

MR. STEIN: How much does that leave, approximately?

MR. BOLTON: About 30 per cent. That would be about 7,000 pounds.

MR. STEIN: About six or 7,000 pounds?

MR. BOLTON: Yes.

MR. STEIN: Now, whichever way, Jack, it seems to me that this responsibility is in the city, and this is what you have to determine when you talk to and agree with the program.

Presumably they figure on a waste load of 22,000 pounds of grease hitting that plant. They have to put in whatever measures they can get to do that. They are going to remove 70 per cent and put six or seven into the river. I think this was it.

MR. SMITH: If they don't have an ordinance to control it.

MR. STEIN: No. Then they are not meeting the requirements, and, after all, we have to recognize here that we have an agency in Nebraska too, in the same way you give a permit, and you have us.

I don't think we can proceed on any basis. If you say they are going to have 22,000 pounds and they are going to remove it and then they get an extra load, this can happen in any plant.

MR. BOLTON: We can handle more than that.

MR. STEIN: I know. I am not worried about your handling more than that. His problem is if you handle more than that and still have your 70 per cent reduction, that he may think you are putting too much grease into the river.

What is your view on that?

MR. BOLTON: I am trying to work it back to paunch manure, Jack. I think it is very low. In fact, I am sure it is.

MR. STEIN: Are we squared away on this or not?

MR. SMITH: I don't think so.

MR. STEIN: Well, you formulate your question, and let's see if we can get at it.

MR. SMITH: Basically, it seems to me like they have got a plant, and he says it has got a certain capacity.

MR. STEIN: Yes.

MR. SMITH: Grease or paunch manure, or anything else.

MR. STEIN: Yes.

MR. SMITH: Now, they have an ordinance which has no limits, as I understand it. How are they going to control it? How do they know when they put this in that they won't be right up to capacity at that moment?

MR. STEIN: Here is the point. Maybe I don't understand this, and maybe the Colonel should do this.

As I saw it, when these plants were approved or designed, in some cities in Missouri you didn't have your industrial waste ordinances yet either, and maybe some don't have them now, but the point is if you have a plant designed for a certain capacity, one way or the other, you have to have regulation or pre-treatment or something, and this is the city's responsibility to see that that plant isn't overloaded.

I don't know that you are asking this, but I think it might be anomalous to ask Omaha to have an ordinance first when this isn't the pattern of the other cities in the region.

The ordinance was put in later, wasn't it, to control the loading in the plant?

MR. SMITH: Well, the thing is that your plants are designed with a certain load in mind.

MR. STEIN: Yes.

MR. SMITH: With a certain removal. In other words, the industries are surveyed, and then an ordinance is passed so that the industry can live with it and the city can live with it. In every plant that I know of, these two go together.

I don't understand this here.

MR. BOLTON: May I have just a moment, please?

This figures out in this low flow, 5100 cfs. It figured out .245 parts per million, the effluent of the plant.

Let's go back to another one that I have talked to the packing industry about, and I wish more of the boys were here. I would like to kind of stay away from this parts per million control on grease because we are encouraging these boys to conserve their water use, so we have kept it in pounds.

MR. CLARE: Mr. Chairman, would it be in order to suggest that we appoint a technical committee to work with the consulting engineers in the city and state and packers, and whoever they need to work with, and report back to the conferees on some of these matters?

MR. SAMSON: I think all that should be resolved before we come to a final agreement on what our recommendations are. Don't you think so?

MR. JOHNSON: Sure.

MR. SAMSON: That would be my feeling on it.

MR. STEIN: In other words, you don't want to agree to this schedule here.

Can't we come along with the agreement here? I think we are slipping backwards here. My view is that we set up this agreement as we have now, contingent upon these technical questions being answered to the satisfaction of the technical committee.

Is this agreed?

MR. CLARE: Can this be resolved to the satisfaction of the conferees?

MR. STEIN: The point is I don't know. As far as I can see, these are purely technical questions, and either Paul Bolton is going to design a plant that is going to work or it is not going to work. It is, it seems to me, that simple.

I don't think you are going to have a difference in any of the professional engineers here, including Paul, whether that is going to operate or not operate.

In other words, you have some legitimate questions about the grease and paunch manure removal capacity of that plant. Obviously we are not going to get you the answers to your questions here.

The conferees will approve this on the basis that the technical questions be answered to the satisfaction of the technical committee.

Is this agreeable? All right.

I will say that I think we will have to ask Mr. Clare to take the lead. The conferees or their designees will be on this technical committee.

Again, I have had experience with this and may I suggest to the conferees that they please put technical men on a technical committee.

Do we have any other comments or questions?

MR. CLARE: I have one, I think, which would be helpful in bringing the record for the conferences in Omaha together.

Actually, the transcript of the first conference is out of print. Would it be in order to suggest that when this conference transcript is prepared, that it be preceded by a reproduction of the first conference transcript, with the summary?

MR. STEIN: May I go off the record?

(Discussion off the record.)

MR. STEIN: Are there any other comments or questions?

(There was no response.)

MR. STEIN: If not, I want to really thank you all for staying with this.

41 Closing Statement

This has been one of the most difficult ones. Do you have a comment before we leave, Colonel?

COLONEL SUMNER: No.

MR. STEIN: This has been one of the most difficult ones.

We have reached a conclusion here. I have a feeling it is the right one, because although no one is going away happy, no one is real mad. I think, given a situation like this, this is about the best you can do.

I also do think we have accomplished quite a bit, and as the rough edges fade in perspective, I think we have really done a good day's work, and I am sure we are on our way to a cleaner Missouri River.

Thank you all again for coming.

We stand adjourned.

(Whereupon, at 6:50 p.m., the conference was adjourned sine die.)

GPO 880-680

SUMMARY OF CONFERENCE
(SECOND SESSION)

POLLUTION OF INTERSTATE WATERS OF THE

MISSOURI RIVER

IN THE OMAHA, NEBRASKA, AREA

(Iowa-Kansas-Missouri-Nebraska)

July 21, 1964

The second session of the conference in the matter of pollution of the interstate waters of the Missouri River (Omaha, Nebraska, area) was held on July 21, 1964, at the Sheraton-Fontenelle Hotel in Omaha, Nebraska, under the provisions of section 8 of the Federal Water Pollution Control Act (33 U.S.C. 466 et seq.). A summary of the first session, held June 14, 1957, is attached hereto and made a part hereof. This session was called by the Secretary of Health, Education, and Welfare on the basis of indications that pollution of the Missouri River, caused by discharges of sewage and industrial wastes from the City of Omaha, was continuing to endanger the health or welfare of persons in States other than that in which the discharges originate.

The following conferees, representing the State water pollution control agencies of Iowa, Kansas, Missouri and Nebraska, and the U. S. Department of Health, Education, and Welfare, attended:

R. J. Schliekelman	Iowa State Department of Health Des Moines, Iowa
J. Lee Mayes	Kansas State Department of Health Topeka, Kansas
Jack Smith	Missouri State Water Pollution Board Jefferson City, Missouri

Freeman Johnson	Missouri State Water Pollution Board Jefferson City, Missouri
E. A. Rogers, M.D.	Nebraska Department of Health Lincoln, Nebraska
John S. Samson	Nebraska Water Pollution Control Council Lincoln, Nebraska
Chester Neil Sutton	Nebraska Water Pollution Control Council Lincoln, Nebraska
Herbert C. Clare	U. S. Department of Health, Education, and Welfare Kansas City, Missouri

The following also participated in the second session of the conference:

J. Russell Batie	Soil Conservation Service Lincoln, Nebraska
Paul Bolton	Henningson, Durham and Richardson Omaha, Nebraska
Leslie Carr	Nebraska City Boat Chairman Nebraska City, Nebraska
James B. Coulter	U. S. Department of Health, Education, and Welfare Washington, D. C.
R. F. Ferguson	Henningson, Durham and Richardson Omaha, Nebraska
T. A. Filipi	Nebraska Department of Health Lincoln, Nebraska
Glen R. Foster	Nebraska Game and Parks Commission Lincoln, Nebraska
Charles A. Geisler	City of Omaha Omaha, Nebraska
Yale C. Holland	Omaha, Nebraska
Arthur J. Meers	Mayor, City of St. Joseph St. Joseph, Missouri

E. Bruce Meier	Kirkham, Michael and Associates Omaha, Nebraska
Harrell F. Mosbaugh	U. S. Department of the Interior Billings, Montana
Charles W. O'Rourke	Union Stockyards Company Omaha, Nebraska
Lester R. Petri	U. S. Geological Survey Lincoln, Nebraska
George B. Sumner	City of Omaha Omaha, Nebraska
Donald A. Townley	U. S. Department of Health, Education, and Welfare Kansas City, Missouri
Harry Trustin	President, City Council Omaha, Nebraska
T. Waara	U. S. Army Corps of Engineers Omaha, Nebraska

The Chairman of the conference pointed out that:

1. Under the Federal Water Pollution Control Act, pollution of interstate waters which endangers the health or welfare of persons in a State other than that in which the discharges originate is subject to abatement under procedures prescribed by section 8 of the Act.

2. The first step of these procedures is the calling of a conference.

3. The purpose of the conference is to bring together the States and the U. S. Department of Health, Education, and Welfare to review the existing situation and the progress made; to lay a basis for future action by all parties concerned; and to give the States and localities an opportunity to agree upon remedial action which may be indicated under State and local law.

4. This is the second session of the conference. At the first session it was unanimously determined that pollution of the Missouri was

so deteriorating water quality as to interfere with, and often prevent, the use of the River for municipal and industrial water supply, recreation, and fishing. The conferees at the first session recommended that adequate waste treatment be provided by the municipalities along the River as soon as possible, and established a detailed time schedule for the installation of such facilities at Omaha (prescribing that the construction contract for the last sewage plant necessary in Omaha be awarded by January 1, 1960). The conferees requested that the Nebraska Department of Health and the Iowa State Department of Health submit biannual progress reports on compliance with these recommendations.

5. The measures presently used for the treatment of sewage and industrial wastes are inadequate to secure the abatement of pollution of the interstate waters of the Missouri River (Omaha, Nebraska, area). The delays encountered in the abatement are due to the failure to install adequate waste treatment facilities or other methods for reduction of pollution, by the municipality and industries concerned.

At the first session of the conference it was understood that the bulk of the wastes from the meat-packing industries in South Omaha, including blood, hair, bones, grease, and paunch manure, would be removed by the plants themselves before discharge into the Omaha city sewers. This disposition of industrial wastes was not adopted by the City of Omaha, and packing-house wastes, including paunch manure and grease, are now being discharged into city sewers. As a result sewer loads are greater than the capacity of the treatment plant, and the City needs further sewage treatment facilities in order to comply with the recommendations made at the first session.

In the light of discussions at the second session of the conference the following conclusions were reached and recommendations made:

(1) Cognizance was taken of the significant progress made in abating pollution since the first session, particularly in the towns of Bellevue, Blair, Decatur, Millard, Nebraska City, Niobrara, and South Sioux City, Nebraska, and Council Bluffs, Iowa.

(2) Cognizance was also taken of the progress made by the City of Omaha in constructing interceptor sewers and a treatment plant.

(3) The conferees unanimously, but reluctantly, agreed to accept Omaha's new plan whereby the City would finance and build another plant designed to treat packing-house wastes, particularly paunch manure and grease, not removed by the industries themselves. The following schedule was adopted:

(a) By September 11, 1964: preliminary plans are to be submitted to the Nebraska Water Pollution Control Council;

(b) By November 1, 1964: municipal financing arrangements, agreements with industries for their share of financing, and all appurtenant legal work are to be completed;

(c) By April 15, 1965: final plans are to be submitted to the Nebraska Water Pollution Control Council for approval;

(d) By July 1, 1965: the construction contract is to be awarded;

(e) By December 15, 1966: the plant is to be completed and in operation.

(4) The conferees emphasized that the existing treatment plant in Omaha must be used to effect the maximum waste removal possible, since the plant's capacity is significantly less than the wastes presently

being carried by the city sewers. The engineers responsible for operating the plant will report to the Nebraska Water Pollution Control Council, at its meeting of September 11, 1964, on studies and arrangements made to maximize the efficiency of the operation. This report should include figures on the grease load coming through the sewers after partial removal at the packing plants, and the percentage of grease that can be removed by the existing plant. These figures will also be considered in regard to the plans for the new plant; they may, if necessary, form the basis for a City ordinance requiring that a minimum portion of specified animal wastes be removed before discharge into city sewers.

(5) A technical committee, composed of the conferees or their designees, was established to consult with City and State engineers, meat-packers, and others concerned with the financing, construction, and operation of the required facilities. The committee will report to the conferees on any technical problems that arise.

(6) State water pollution control agencies will no longer submit six-month progress reports on communities in compliance with recommendations made at the first session of the conference. The Regional Program Director of the U. S. Department of Health, Education, and Welfare will report to the conferees on Omaha's compliance with the schedule for construction of waste treatment facilities set up at this session.